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INTERIM REPORT



THE MISSING PUPILS IN THE SCHOOLS OF ONTARIO TODAY AND TOMORROW A STATEMENT OF CONDITIONS, CAUSES & ISSUES



The Commission on Declining School Enrolments in Ontario

February 28, 1978

Toronto, Ontario

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The Commission on Declining School Enrolments in Ontario (CODE)

Room N425, 252 Bloor Street West, Toronto, Ontario, Canada M5S 1V6

Telephone 964-2527

Commissioner, R. W. B. Jackson, Ph.D.

Executive Secretary, H. B. Henderson

February 28, 1978

The Honourable Thomas L. Wells
Minister of Education
Province of Ontario
22nd Floor, Mowat Block
Queen's Park, Toronto
Ontario
M7A 1L2

Dear Sir:

I submit herewith the first interim report of the Commission on Declining School Enrolments in Ontario, as required under my terms of reference. The report is now being published and will be distributed during the next few weeks, after the first 250 copies have been delivered to your office.

As you will observe, this first report is almost wholly a factual account of the situation in this province today, with an occasional reference to conditions in other jurisdictions (i.e., in other provinces and in other countries) where these were deemed relevant. Some special reports prepared for the Commission, under contract, will be published separately since they are not, strictly speaking, an integral part of the Commission report.

In the main chapters attention has been drawn to the questions and issues raised by the information presented, and upon occasion the obvious implications have been indicated. Note in particular, however, that I have assiduously avoided any attempt to present even preliminary or tentative conclusions, decisions and recommendations at this stage. That part of the task will be undertaken only when all the public hearings have been held and when all the evidence needed has been secured. In view of some of the statements which have been made in the press, and erroneously attributed to me, I wish to make it absolutely clear that at this stage I very definitely have not formed any conclusions, decisions or recommendations.

I regret to state that the interim report is not as complete and up-to-date as I had hoped and planned. Some needed basic data on population, fertility and school enrolment were either not available until very late, or in some cases are not available even yet, despite the fact that officials in your Ministry, in the Ontario Ministry of Treasury, Economics and Intergovernmental Affairs and in Statistics Canada made every effort to assist me and prepared, at my request, special tables in advance of the normal release dates. Surprisingly, part of the difficulty seems to arise from the development of data banks and reliance on computers and models: long delays seem an inevitable feature of the process. For example, the 1976 census data by single years of age were not delivered to my office until December 21, 1977, which automatically caused delays in projection studies commissioned from Statistics Canada and TEIGA.

These special demographic reports, designed to yield directly or indirectly projections of population and school enrolment in 1986, and later to 2001, were to have been included as a special feature of this interim report, incorporating the 1976 census data and the most recent fertility rates. Unfortunately, the latest published fertility rates are for 1974, a very critical lag indeed, although I have preliminary values for 1975 and we know very well from the birth registrations reported for

1976 and 1977 that these rates for Ontario must have decreased very substantially in the last two years (an obvious conclusion, since we know that the number of potential parents increased whereas the number of live births decreased during 1975, 1976, and 1977).

We do not have up-to-date figures on school enrolment in this province for September, 1977, either for the individual boards, counties, and districts, or for the province as a whole. Likewise, up-to-date population projections for the counties and districts are not available, although through special efforts we do have some preliminary returns for the province as a whole. You will note from the text that I personally took time out to prepare a set of approximate figures up to 1986, for live births in particular and, based on the most likely (in my opinion) set of live birth projections, projected age distributions for 1981 and 1986 (assuming that the 1976 mortality and migration rates remained constant during that decade, which the experience of the past 15 years seemed to indicate is a reasonable assumption to make). In addition, and partly as a check of our school enrolment projections, I asked Statistics Canada to prepare special population projections, up to the year 2001, using nine sets of conditions for fertility and migration. The returns have just been received but not yet put to use. I am very grateful for this special assistance, and especially to my friends of many years, Drs. Miles Wisenthal and Zoltan Zsigmond, who certainly went far beyond the call of duty or even the ordinary limits of friendship to help.

I have also included some special tables and graphs for the other provinces, based on the 1976 census for the most part, so that our people in Ontario would know that all parts of our country are affected. One can see also, perhaps best of all from the graphs, the different effects of migration on the several provinces, which has a special meaning for Ontario since it has always been the pivotal province for both international and interprovincial migration. Not that what happens here is necessarily good for the rest of the country, to paraphrase the cartoon character General Bullmoose of many years ago, but it certainly does affect the rest of the country, from the far West to the far East.

My unusual concern for these facts and factors arises from my knowledge that we are at a critical period in our history, and the future is a rather uncertain quantity to project. Above all else, we need the most valid and recent facts we can secure in order that we may plan adequately during the next few decades, for the short-term as well as the long-term. As you know, the projections of the United Nations' Organization for Economic Cooperation and Development and the Economic Councils of Canada and of Ontario point to difficult economic conditions in the years ahead: a sluggish economy accompanied by high levels of inflation and of unemployment for at least five and perhaps ten years. As indicated in subsequent sections, I agree with these forecasts, gloomy though they be. I have, as a survivor of the Great Depression and the Ten Lost Years on the Prairies, the uneasy feeling that history is repeating itself, although I still hope not.

That the fertility of our people has been gravely affected, especially because for the first time in our history we are in a position to control it absolutely, can hardly be questioned. The declines in school enrolment flow directly from the declines in fertility, automatically in fact as the years pass and the children become older, and the most serious implications stem from the fact that fertility continues to decline and shows no evidence of a change in the trend which would provide relief sooner or later. It is one thing, as you well know, to face and surmount difficulties arising from a temporary decline, no matter how severe, and quite another to solve the problems arising from a school system, closed to outside influences, that will wind down far into the future. For our school personnel, and especially for the young teacher graduates, the experience of loss of employment – or inability to secure any at all – is a shattering and frightening experience, which is exacerbated almost beyond endurance by the general conditions of “stagflation” and unemployment. Everything possible must be done to ensure that the resultant human loss and suffering is minimized and alleviated, and that the quality of our school programs does not deteriorate. The fewer they are,

the more precious and essential our children become. Possibly a continuance of the high birth rates of the late 1950's would have produced a load our economy could not bear, but at present one may be excused for longing upon occasion for such a Utopia.

It is cold comfort, to you or to me, to comment as I feel I must that what our school system is suffering now will afflict all aspects of our society in due course. Indeed, the greatest impacts of the population changes have yet to be felt, but they inevitably must be. Strangest of all to contemplate, no doubt, is the advent of a grave shortage of younger workers well before the end of this century. Impossible? No, inevitable. My advice to you, Mr. Minister, in preparation for what is to come, is to learn to accept one "impossible" fact each and every day!

Yours sincerely,

R.W.B. Jackson
Commissioner, CODE

FOREWORD

This first interim report of the Commission on Declining School Enrolments in Ontario should be regarded primarily as a gathering together of the currently available data on the conditions of declining school enrolments and a preliminary statement of what is already known about its future dimensions. It is not a progress report on, or of, the new research being done for the Commission, nor is it any device for a “kite-flying” of possible recommendations which the final report will suggest to you should be implemented. In fact, for the members of the “education establishment” who operate the school systems of our province, the report will not contain much new information. It simply assembles in a systematic fashion the material of a number of recent reports, supplemented where necessary by the results of special studies conducted by or for the Commission.

Each chapter of the report follows a common format, beginning with a brief statement of the past and of the present, largely in statistical terms, and ending with the most recent, or currently available, projections of the medium range future — for the most part of the ten-year period ending in 1986. I was unable, very much to my regret, to present CODE’s best projections of conditions to the year 2001.¹ However, as I indicated in my Letter of Transmittal, there has been a delay in preparing long-range forecasts because of the difficulties of obtaining certain population and enrolment statistics. I shall discuss more fully from time to time the problems of data collection, analyses and reporting, as well as reporting upon the results and findings of the research studies contracted by the Commission, not all of which have been completed.

Since some readers may well question the relevance of Chapter 1, the background chapter on economic and political conditions, I would like to seize this opportunity to explain its purposes.

Some of the objectives have been hinted at in the Letter of Transmittal, and any of the numerous groups the Commission has addressed will understand my point of view. (Whether or not they agree with it is not relevant at this point.) I firmly believe that each education system is part and parcel of the social and economic structures in which it is embedded, drawing its vitality and aims from those structures. An education system serves the society in which it operates, and the extent and type of its services is largely in response to the conditions of that society and of its expectations of education.

In the Commission’s studies we have been and are concerned almost wholly with the problems arising from the contraction of the elementary and secondary education sector. But we simply cannot ignore their relationships to the associated problems of other parts of the educational system and to the general economic, social, and political conditions outside the walls of the classrooms and schools. Therefore, our report commences with a background chapter to set the stage, so to speak, by discussing the economic, social and political conditions likely to prevail in Ontario during the next twenty years.

Under no circumstances, of course, must this be read as a statement of intent or preference on our part, but only as a statement of probable conditions prepared on the basis of the records of the present, of the most recent past, and on whatever statements of government economic and social policy — or of intent or hope — that have already been made publicly available. In no way do we have, nor would we have sought from any level of government, access to information on policy which was not in the public domain.

¹The year 2001 is used because it coincides with a census year, or at least will do so unless present practice is changed.

For this background social, economic and political material I am particularly indebted to the members of the Task Force (Finance) which the Commission set up several months ago. The group comprised a set of expert economists who served as consultants under the able chairmanship of Dr. John Holland of the Ontario Institute for Studies in Education (OISE). It is evident from their reports that if the contraction of the education system which we are now experiencing had occurred during a period of economic boom, as did the expansion of the education system for the most part, then its problems would almost certainly have been less severe than those anticipated by our figures and graphs. For example, to use a simple illustration, an economic boom normally requires the admission of migrant workers (interprovincial and international, for Ontario) seeking the jobs which become available. Alberta, in fact, is experiencing such boom conditions today. Most migrants are in the young labour force age group and they do not themselves enter the education system in great numbers. But they normally bring with them, or soon after arrival send for, their wives and young dependent children of school age for the most part, or they marry in Canada and form families here. Accordingly, there is quite likely through migration an immediate and substantial impact on school enrolment.

Our background chapter, though, does not suggest that we will enjoy during the next decade a period of rapid economic expansion, nor that we should expect prolonged migration at the level which Ontario experienced during the 1960's. Not only is migration unlikely to improve the demographic picture and thereby have a favourable impact on school enrolment, but the somewhat depressing economic conditions — continued “stagflation,” in all likelihood — will make questions of rising unit and total education costs of acute importance. Since the continued contraction of the education system, particularly during the next decade, is not expected to take place under buoyant economic and general financial circumstances, it becomes all the more important to begin the discussion of enrolment contraction conditions and related problems with a general picture of what the economy is likely to be during the 1970's and 1980's.

The inclusion of the next chapter, on population conditions, hardly needs any justification, I suppose, since our school children are part of the total population, but few seem fully aware of the changes in certain characteristics of our population and of their profound implications, referred to in the Letter of Transmittal. Consequently, we have taken considerable pains to explain and illustrate the direct impact of fertility upon school enrolments, self-evident though this might seem to be, and also the implications of the large long-term differences in population numbers which quite small differences in fertility assumptions will produce (particularly now that the generation of the post-war Baby Boom children have reached the ages when reproductivity rates are at their highest). The indirect impact of migration (international, interprovincial and intraprovincial) on the numbers of children to be educated by each board is also discussed fully. These population estimates provide the basis for many of the projections relating directly to school conditions of the immediate and long-term future.

For the materials of this chapter on population we are indebted to the work of Dr. Cicely Watson and Mr. Saeed Quazi and their team at OISE as well as to my own estimates, those of Statistics Canada, and of a group in the central statistical branch of the Ontario Ministry of Treasury, Economics, and Intergovernmental Affairs (TEIGA). For very many years now, TEIGA officials have provided OISE staff with the “benchmark” population projections used for their enrolment projection studies for the Ministry of Education, and this population chapter draws, not only upon their previous reports, but upon the preliminary TEIGA report of a research project commissioned in order to secure revised and up-to-date figures which incorporate all that is known to date about fertility, migration and age distribution in our province.

Chapter 3 begins what probably will be regarded as the proper concern of my Commission: enrolments in the public, separate and secondary school systems of Ontario, by age and grade where

necessary. We give some information also about private schools, trade schools, the Indian and Innuit enrolment, pupils of the Armed Forces schools and enrolment by adults. Unfortunately the data for some of such “exceptional” enrolment categories are sparse and often difficult to secure. We hope that, before the submission of our second interim report, more detailed statistics for these sectors will be available. Although they may represent, numerically, only a small part of the total educational service, they are important factors deserving the fullest consideration.

The chapter also deals with school enrolments of county and city boards. The conditions vary greatly from one jurisdiction to another, from very substantial declines to substantial gains. Here I would emphasize a point which cannot be stated too strongly or too frequently: in light of such variations in conditions, many of the problems of rapid enrolment contraction really must be solved at the level of the local operating unit, as was, and indeed still is, the case with the problems of rapid enrolment expansion. The primary general policy issue is to define the conditions and constraints under which local boards and their schools accommodate to their problems. For the province as a whole, their decisions must be seen to be equitable, comparable, reasonable and farsighted.

The enrolment projections presented in Chapter 3 were prepared by OISE, under contract with the Ministry of Education and submitted in August, 1977. Research work, now underway to extend these, will be completed when the essential population projections and 1977 enrolment data become available. These new enrolment projections will extend to the year 2001 for boards in the southern part of the province, but only to 1986 for the small boards in Northern Ontario. With small numbers, and uncertain economic conditions, longer range projections would not be warranted.

For the first time we have attempted to prepare projections by language group (Anglophone/Francophone). Many of these have already been used (plus some data on fertility rates by language groups) in an address to the Franco-Ontarian school trustee group and we have noted in public addresses about the work of the Commission that there is a keen interest in the relative decline, especially in the rate of decline, in fertility and in the numbers of the school age population of these two language groups.

Normally, for secondary schools, enrolment projections have not been prepared separately by subject, but we are now attempting to do this, for those subjects with large enrolments only at this stage. Since rates of growth differed with each secondary school subject, largely owing to many new subjects and programs being added during the 1950's and 1960's, varying rates of reduction in enrolment by subject over the years must be anticipated in future. In a contracting system such differing rates pose additional problems, in terms of programs, space and instructional personnel. The components of the shifts never seem to mesh, nor should we expect them to do so under ordinary conditions of considerable freedom of choice of subjects by students.

Chapter 4 comprises a general description of the programs and curricula provided by Ontario's schools today, to serve as a background and also to indicate how declining enrolment may affect them. It is based upon an interim report of the Commission's Task Force (Curriculum) set up under the chairmanship of Dr. Michael Connelly of OISE.

Chapter 5 has similar purposes: it briefly describes the administration of the school systems in this province, and some of the issues of administrative structure which will complicate the development of solutions for the contraction problems. For this work I am indebted to Dr. Edward Hickcox of OISE for the preparation of an interim report, assisted in part by Mr. Howard B. Henderson, the Executive Secretary of the Commission.

Chapters 4 and 5 are introductory in nature; my findings and conclusions must await the completion of detailed surveys and research studies in these fields which have been commissioned.

Chapter 6 is longer and provides much more detailed information on teacher supply and demand,

and on the teacher training programs in faculties of education of the universities and in the Ontario Teacher Education Colleges in Toronto and Hamilton. As indicated, it is organized in two sections: the first provides statistics about the current teacher force, the second deals with the teacher supply and demand projections.

The size of the currently employed instructional staff is statistically related directly to the number of pupils to be taught (hence the keen interest in the PTR, the pupil-teacher-ratio now often an item in the annual board-teacher negotiations) and thus enrolment determines in large part the demand for teachers. The supply is related to two factors: the number of qualified teachers from earlier years (and other jurisdictions) seeking employment as teachers in the current year, and the number of new teacher graduates of the teacher training institutions. Under normal conditions the level of the annual supply of teachers is directly related to the size of the main supply source, the number of graduates of teacher training institutions. But these are not normal times, and the supply picture is clouded by the large pool of already qualified teachers seeking employment. That exact number is not known, at least not yet, despite the most strenuous efforts on our part to trace these persons through official sources, and also to trace as many as possible of those trained as teachers who have, for various reasons, sought other types of employment.

The brief description of the history of teacher training in Ontario has been made available through interim reports of Dr. Willard Brehaut of OISE, and by Dr. Al Fiorino, a consultant to the Commission. They are continuing their work, and their final report will provide a detailed history of the development of teacher education and of the training institutions themselves.

For the statistical information about the faculties of education and the teacher education colleges, we are indebted to the work of the OISE planning group (in the OISE Department of Educational Planning) under Dr. Watson and Mr. Quazi, and to the interim reports of Mr. Bert Hansen, a Commission consultant from the Hansen Group of Management Consultants.

The basic data from which the trends of teacher supply and demand were derived, and the description of the current teacher force classified by age, sex, experience and qualifications, and a great many other variables, have been provided by four main groups: the Ministry of Education and the Ministry of Colleges and Universities, the Ontario Teachers' Federation and its affiliates (the Ontario Secondary School Teachers' Federation, in particular has been most helpful), Statistics Canada, and the teacher training institutions themselves. Without these excellent statistical records, in most cases in the form of computerized data banks, it would not have been possible for us to investigate in detail the factors which lie behind each year's supply/demand estimates, and I seize this opportunity to express my admiration for the work which is done to develop and maintain these data banks, and especially to express my appreciation to the organizations and their officials for making the information available to us. (The confidentiality of the files, I can assure you, was not violated in any way.)

However, this chapter does represent but the tip of the iceberg: my Commission is undertaking a great deal of research on teachers. Undoubtedly the most serious problems of contraction are the human ones, and not only of the teaching force. As the Chairman of the West Parry Sound Board of Education so aptly expressed it, "Declining Enrolment — A Human Condition." I sincerely hope that during these critical times we hurt as few persons as little as is humanly possible.

The second last chapter, Chapter 7, is devoted to the problem of school facilities and in particular school buildings and school sites. What we encounter here is a complex and vexatious series of problems, centred around the concept of the school as a community centre and the strong feelings of resentment and anger that are so often aroused, and with some justification one must admit, by the busing of very young children over long distances. All it takes to spark raging anger is one serious school bus accident. Unfortunately there have been several.

In the study of these problems we have drawn information from several sources. We established very early a Task Force on School Facilities, and a good part of the material for this chapter has been extracted from the interim report prepared by its Chairman, Mr. Henderson, the Commission's Executive Secretary who is on secondment from the Ministry of Education, where he was serving as a director of one of the regions. Some of the material demonstrating the underutilization of school buildings has been taken from the TEIGA research report referred to earlier. The remainder of the statistics quoted were prepared for this purpose by the OISE "projection team" of Dr. Watson and Mr. Quazi using information supplied by the Ministry of Education.

Chapter 8, our final chapter, discusses education costs and the other issues in the financing of education, with special attention to the need to review the arrangements provincially and locally now that we have moved from a period of rapid expansion into a period of almost equally rapid contraction. The various items of expenditure and sources of revenue are not fully dealt with at this juncture, because the Commission has not yet completed the great deal of research undertaken in these matters. However, the chapter does report much of the excellent background material already available from the research of the Committee on the Costs of Education and from the school grants plan studies of Professor E. Brock Rideout of OISE and of Professor David Cameron of Dalhousie University and others. The work is being coordinated by the Task Force (Finance), referred to earlier, of which Dr. Holland is the Chairman.

Much of the existing information on education financing is based on analyses of the expenditure patterns of local school systems and the relationship of provincial funding to local funding which comes almost exclusively from property taxes. However, a full understanding of costs requires an analysis of expenditures at the level of the individual school, and of the funds allotted to it by its school board. Cost is obviously a very important variable to consider, although not necessarily the most important or critical in every situation, when decisions have to be made about the closing (or not) of individual schools. Accordingly, some very significant research of this type has been commissioned.

We have attempted to list at the end of each chapter, generally in simple point form without an evaluation of importance, the major questions and issues which have arisen, or which have been suggested, during this initial period of our investigations. The lists are not intended to be exhaustive and very definitely are not to be considered as indicating the trend of our conclusions, decisions and possible recommendations to the government. They will draw attention to some of the critical issues, which we hope will be addressed during the public hearings in March and April and subsequently.

This first interim report ends with a somewhat unusual form of epilogue. In it we outline with some care our plans for the future course of our investigation, including a statement of the arrangements made for the public hearings in March and April and of what we expect to learn from them. Going beyond that stage, which begins March 1st, we have provided a description of the nature and purpose of our proposed second interim report, which will take the form of an identification of the major implications of the several factors associated with declining school enrolments and a discussion of the possible alternative solutions for the problems which are raised. It is planned to issue that report in the form of a White Paper by the Commission in May, probably the end of May if the public hearings prove to be as useful and stimulating as can now be confidently anticipated. Public reaction to the sets of possible alternative solutions will be solicited, indeed will be very actively sought and carefully considered. If it proves necessary, further public hearings will be held and a very sincere effort made to attain consensus on solutions to at least the major and basic problems involving the future, not only of our children, but of ourselves. Unless there are further delays in the provision of the essential statistical and other information, my final report will be in the hands of the Minister of Education near the beginning of the new school year of September, 1978.

Chapter 1

The Context of Declining Enrolments as a Policy Issue

Children are the subject of this chapter and this report, as they are of any study of schools. Moreover, children are close to the heart of the matter when the subject is the quality of life, national survival, conservation of resources or world peace. All this should go without saying, but it is something of a challenge to keep it in mind when thinking about the schools of Ontario and public policy in 1978.

We are keenly aware today that we fashion our schools in accord with our current notions of sound economics, sociology and political science at least as much as we fashion them to suit our views of psychology and pedagogy. It cannot be expected that we will ever again think of education policy as something apart from the rest of the business of statecraft. It is appropriate then that we look at the recent past, the present and the future of our schools as a part of our economic development, social changes and political behaviour.

Population Developments

Love of children is a universal and constant human trait, but popular attitudes and government policies concerning the rate at which children should be produced is a variable quite sensitive to environmental changes. In turn, the variable itself has both immediate and long-term effects on the environment. So important are reproduction rates to the character and fate of societies, in fact, that governments have long, perhaps always, considered the conditions that appear to influence these rates a legitimate concern of policy. Government activities dealing with reproductive behaviour antedate those we know as education policy.

In general, governments are pro reproduction. There have been numerous exceptions, however, some aimed at limiting the reproduction rates of certain elements or classes in the population, and some at reducing the rates of the total population. It is interesting, and perhaps ironic given

our present concern for declining enrolments, that some of the early rationalizations by political philosophers (such as Malthus, Ricardo, N. Senior, J.S. Mill) of public education were, in effect, polemics for policies to slow reproduction.¹ In the twentieth century, especially the third of a century since World War II, some governments have adopted policies to limit or reduce reproduction and buttressed them with sustained efforts at implementation.

Countless questions can be raised about the effectiveness of both pro-natalist and anti-natalist policies. Some very well established policies, such as France under its several twentieth century constitutions, legislated what purported to be pro-natalist policies while birth rates dropped or stayed low nonetheless. In some of these cases expressed policy was in conflict with the behaviour of all major institutions of the society, and even with that policy and the policies and legislation of the same government in other areas such as taxation, inheritance, education and the distribution of income and status.

Positions on progenitiveness are related to social and physical conditions and perceptions of individual, group or societal interests. It is not surprising that in secular, democratic societies the state should increasingly deal with conflicting views by leaving the matter to constituent institutions and individuals. As these societies become increasingly secular and their economies more characterized by "free labour", i.e., workers increasingly free of institutions, conventions and laws inhibiting their responses to perceived opportunities and consumption choices, leaving the matter to institutions and individuals becomes more and more a matter of leaving it to individuals.

No doubt the development of a "safe and effective" oral contraceptive, encouraged by an important North American anti-progenitive society,² contributed to the very rapid decline in births about 1961. It ought not be presumed, however, that that explains in important measure the decline in birth rates. Comparable declines came to other nations, notably Japan,

¹Blitz, R. C. "Some Classical Economists and Their Views on Education," Economia (Santiago, Chile), Vol. 72, (1961): 34-66. Several somewhat revised reprintings have appeared in English-language publications.

²The reference here is to the Planned Parenthood Federation of the U.S., under the leadership of Margaret Sanger, and to the experimental works leading to the positive evaluation made by Dr. John Rock. See D.H. Merkin, Pregnancy as a Disease, 1976.

before the contraceptive pill was available. And today the pill is criticized on grounds of safety even by anti-natalists in this society, but apparently without significantly affecting reproductive rates. Abortion and other contraceptive means are available and resorted to. The most that can be said is that the pill speeded up the process of liberating many Canadians from religious, political, esthetic and ethical inhibitions to postponing and reducing reproduction.

We should look at our reproductive behaviour with a viewpoint that goes further back than the development of the pill. During the Great Depression there was a rapid decrease in birth rates, while the aftermath of World War II saw an increase in birth rates that appeared striking indeed following upon the preceding period of rapidly declining rates. Table 1.1 indicates that perhaps the decades of the 1930's, 1940's and 1950's were unusual in their nature. That table presents the history of the decline of the population of children as a portion of total population. Viewed historically, the present low rates of reproduction for Canada and Ontario and the changing population structure seem less striking. It should be noted, too, that the happy realities of improving infant and child survival and the improving general life expectancy have contributed, along with low birth rates, to the increasing ratio of adults to children. Apparently, in an industrializing, urbanizing, secular society we should expect to see fewer -- and fewer -- children.

Since the median age of Canadians is now about 27 years, and almost 78% of Canadians are less than 50 years of age, it is not surprising that our knowledge of history and demography before 1930 is sketchy, and that therefore most of us see the birth declines in the 1960's and 1970's, and the related declines in enrolments as precipitous. It would be more appropriate, however, to say that declining school enrolments are a result of an increasing tendency of Canadian women to postpone and avoid child-bearing. Chart 1.1 illustrates that trend by presenting two views of the information contained in Table 1.1, the first limited to the years since 1931, the second including the years since 1851 for Canada, and the years since 1881 for Ontario.

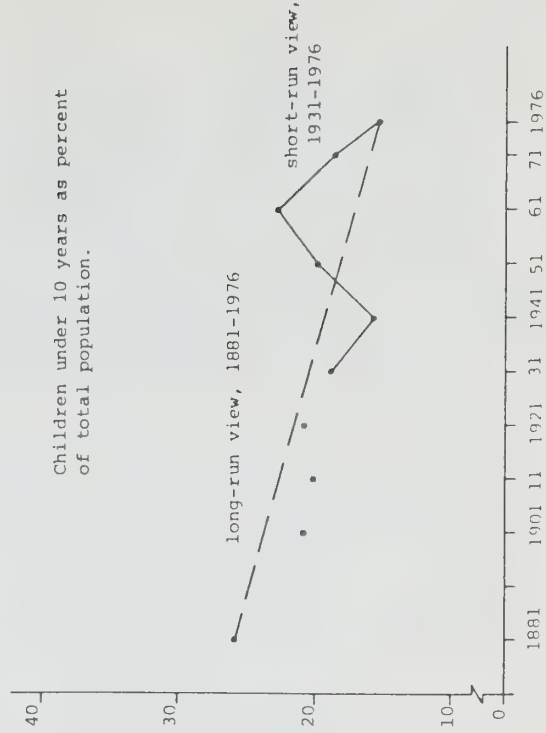
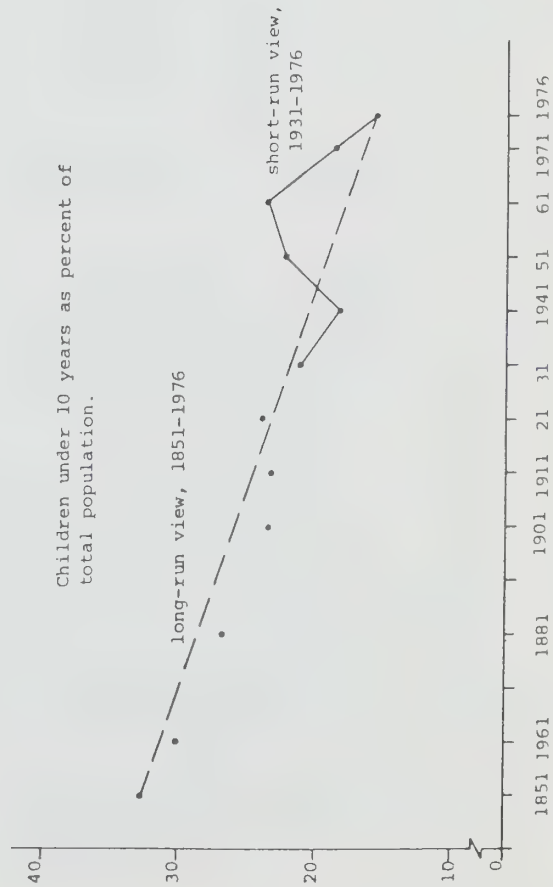
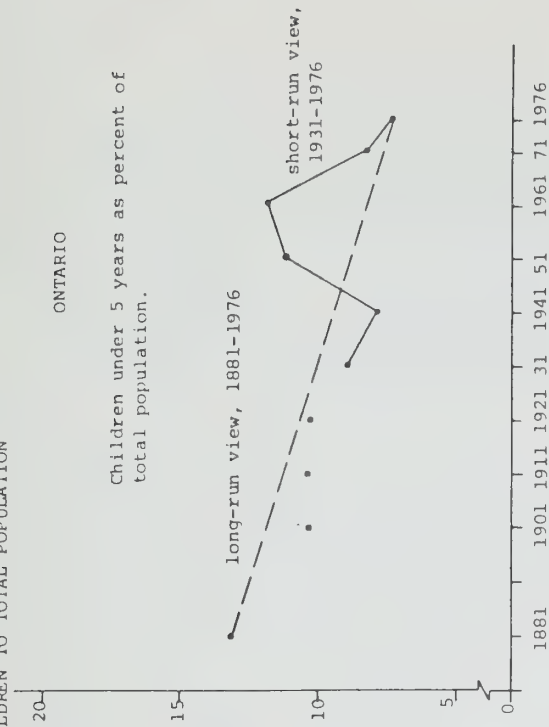
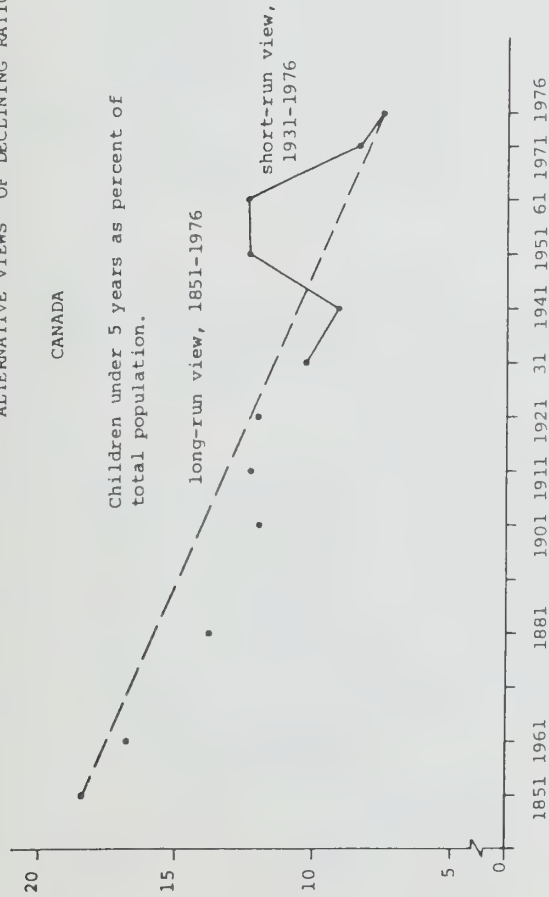
TABLE 1.1
CHILDREN UNDER 5 AND CHILDREN UNDER 10 AS A PERCENTAGE OF TOTAL POPULATION

| YEAR | CANADA | | | | | ONTARIO | | | | | |
|------|---------------------|------------------------------|-------|-------------------------------|-------|---------|---------------------|------------------------------|-------|-------------------------------|-------|
| | Total Population | Children under 5 (0-4) | % | Children under 10 (0-9) | % | Year | Total Population | Children under 5 (0-4) | % | Children under 10 (0-9) | % |
| 1851 | 2,436,000 | 451,000 | 18.51 | 797,000 | 32.72 | | | | | | |
| 1861 | 3,230,000 | 543,000 | 16.81 | 972,000 | 30.09 | | | | | | |
| 1871 | 3,689,257 | | | | | 1871 | 1,620,851 | | | | |
| 1881 | 4,325,000 | 599,000 | 13.85 | 1,161,000 | 26.84 | 1881 | 1,926,922 | 252,053 | 13.08 | 497,486 | 25.82 |
| 1891 | 4,833,239 | | | | | 1891 | 2,114,321 | | | | |
| 1901 | 5,371,000 | 646,000 | 12.03 | 1,264,000 | 23.53 | 1901 | 2,182,947 | 224,814 | 10.30 | 455,382 | 20.86 |
| 1911 | 7,207,000 | 890,000 | 12.35 | 1,675,000 | 23.24 | 1911 | 2,527,292 | 263,266 | 10.42 | 507,431 | 20.08 |
| 1921 | 8,788,000 | 1,059,000 | 12.05 | 2,109,000 | 24.00 | 1921 | 2,933,662 | 301,809 | 10.29 | 609,670 | 20.78 |
| 1931 | 10,377,000 | 1,075,000 | 10.36 | 2,208,000 | 21.28 | 1931 | 3,431,683 | 307,711 | 8.97 | 640,699 | 18.67 |
| 1941 | 11,507,000 | 1,052,000 | 9.14 | 2,098,000 | 18.23 | 1941 | 3,787,655 | 297,924 | 7.87 | 599,439 | 15.83 |
| 1951 | 14,009,000 | 1,722,000 | 12.29 | 3,120,000 | 22.27 | 1951 | 4,597,542 | 514,722 | 11.20 | 914,014 | 19.88 |
| 1961 | 18,238,247 | 2,256,401 | 12.37 | 4,335,923 | 23.77 | 1961 | 6,236,092 | 740,193 | 11.87 | 1,414,712 | 22.69 |
| 1971 | 21,568,310 | 1,816,155 | 8.42 | 4,070,160 | 18.87 | 1971 | 7,703,105 | 637,255 | 8.27 | 1,420,770 | 18.44 |
| 1976 | 22,992,600 | 1,731,995 | 7.53 | 3,619,800 | 15.74 | 1976 | 8,264,465 | 607,205 | 7.35 | 1,275,020 | 15.43 |

Source: M. C. Urquhart, Editor, Historical Statistics of Canada. Toronto: MacMillan of Canada, 1965, p. 16.

Census of Canada, 1971, Volume 1, part 2.
Census of Canada, 1941, Volume 3.
Unpublished Statistics Canada data for 1976.

ALTERNATIVE VIEWS¹ OF DECLINING RATIO OF CHILDREN TO TOTAL POPULATION



¹ line representing long-run view is simply a straight line joining 1976 percentage to percentage in 1851 (for Canada) or to percentage in 1881 (for Ontario); it is not a "least squares line."

Economic Conditions

The present and projected low enrolments in our schools would have surprised us less, and would trouble us less, had they not followed so close upon the peak enrolments resulting from the high and increasing birth rates of the 1945-1961 period. Similarly, even the trauma of adjusting to what we perceive to be very sudden enrolment changes would be less were they not associated with the economic problems peculiar to our time.

It is no simple matter to decide what exactly our economic problems are. The case can be made that the Ontario economy in 1978 is "doing well" because the economy is supporting more Ontarians than ever before, Ontarians are producing more in real terms than ever before and a larger number and a larger percentage of them are employed than ever before. The case can also be made that we are "faring ill" because growth in gross provincial product was woefully short of our "expected" or "normal" growth rate in 1977 and of most projections made for it in 1976. Numbers and percentages of persons unemployed are higher than they have been since the Great Depression. Increases in product per capita and per worker have been very modest for several years, and large numbers of expensively trained people are not finding work in the fields for which they have prepared.

Perhaps of more importance, to declining enrolments, is the relationship between changes in total and per capita costs of education and changes in gross provincial product, total and per capita personal income, the consumer price index and provincial government revenues.

But before plunging into the taxing details of such matters as GPP and RPDI, let us set the stage briefly with descriptions of some important general concepts. Our concern with comparing this year's incomes with those of past years and of years to come, leads us to express incomes in what we call "real" terms. Personal disposable income inflated (or deflated) to compensate for price changes is real personal disposable income per person (RPDI/P), and it is the closest thing we have to a measure of what we refer to as our standard of living.

Personal income is the financial concept corresponding to the income derived from all the products of economic activity accruing to our citizens. It involves roughly total wages, rent, business income, interest and dividends received by all persons in the province. Taxation takes a portion of that personal income for public use. Some part of tax money is returned to us in the form of transfer payments. Personal income minus taxes, plus transfer payments, is personal disposable income.

Now let us plunge in.

The great period of education expansion in Ontario began before the end of the decade of the 1950's, and some aspects of it continued into the 1970's, but it was in large measure a product of the 1960's. Limiting our consideration to the ten fiscal years 1960-61 to 1969-70, inclusive, we find some interesting economic correlates of that period.

Table 1.2 shows the expenditure estimates of the province and two ministries, Health and Education (including Colleges and Universities) for the 1960's and several selected years before and after. It also shows the expenditures of these two ministries as percentages of total provincial expenditures.

Table 1.3 shows that population, gross provincial product (GPP) and personal income for the calendar years corresponding approximately to the fiscal years in Table 1.2, plus expenditure estimates as a percent of GPP.

During the 1960's spending on education made a giant leap. While population grew from 6.111 million to 7.385 million (20.8%), and GPP from \$14.638 billion to \$32.523 billion (122%), education expenditures jumped from \$234 million to \$1,297 million (a whopping 454%). Total expenditure estimates grew from \$1.007 billion to \$3.990 billion (296%).

It was a time when Ontario could make the political decisions to spend a larger portion of an increasing provincial product in the public sector and to spend a disproportionately large share of that portion on education and still afford satisfying increases in real personal disposable income per person.

For the nation, real disposable income per person, which had increased at an average annual rate of 1.66% in the 1955-60 period, increased in

TABLE 1.2
PROVINCIAL EXPENDITURE ESTIMATES
Health, Education and Total

| YEAR | HEALTH (\$ million) | EDUCATION (\$ million) | TOTAL (\$ million) | HEALTH (% of Total) | EDUCATION (% of Total) |
|---------|------------------------|---------------------------|-----------------------|------------------------|---------------------------|
| 1950-51 | 33 | 56 | 353 | 9.4 | 15.9 |
| 1955-56 | 53 | 92 | 569 | 9.3 | 16.2 |
| 1960-61 | 92 | 234 | 1007 | 9.1 | 23.2 |
| 1961-62 | 136 | 266 | 1135 | 12.0 | 23.4 |
| 1962-63 | 149 | 337 | 1254 | 11.9 | 26.9 |
| 1963-64 | 137 | 396 | 1369 | 10.0 | 28.9 |
| 1964-65 | 156 | 422 | 1459 | 10.7 | 28.9 |
| 1965-66 | 176 | 517 | 1871 | 9.4 | 27.6 |
| 1966-67 | 262 | 699 | 2323 | 11.3 | 30.1 |
| 1967-68 | 359 | 889 | 3084 | 11.6 | 28.8 |
| 1968-69 | 396 | 1162 | 3735 | 10.6 | 31.1 |
| 1969-70 | 398 | 1297 | 3990 | 10.0 | 32.5 |
| 1972-73 | 2028 | 1998 | 7071 | 28.7 | 28.3 |
| 1974-75 | 2342 | 2424 | 8917 | 26.3 | 27.2 |

Sources Public Accounts,
Ontario Expenditure Estimates, various issues.

Taken from Tables 4, 12, 13, pp. 12, 34, 35 in D. K. Foot,
Provincial Public Finance in Ontario, Ontario Economic Council,
1977.

TABLE 1.3

POPULATION, PROVINCIAL PRODUCT, PERSONAL INCOME, AND
PROVINCIAL EXPENDITURES/PROVINCIAL PRODUCT

| YEAR | POPULATION (millions) | GPP (\$ billion) | PERSONAL INCOME (\$ billion) | EXPENDITURE ESTIMATES (% of GPP) |
|------|--------------------------|---------------------|------------------------------------|----------------------------------------|
| 1950 | 4.471 | 7.410 | 5.638 | 4.8 fiscal year 1950-51 |
| 1955 | 5.266 | 10.803 | 8.525 | 5.3 f.y. 1955-56 |
| 1960 | 6.111 | 14.638 | 11.923 | 6.9 f.y. 1960-61 |
| 1961 | 6.236 | 15.360 | 12.187 | 7.4 f.y. 1961-62 |
| 1962 | 6.351 | 16.335 | 13.098 | 7.7 f.y. 1962-63 |
| 1963 | 6.481 | 17.795 | 13.976 | 7.7 f.y. 1963-64 |
| 1964 | 6.631 | 19.543 | 15.030 | 7.5 f.y. 1964-65 |
| 1965 | 6.788 | 21.661 | 16.537 | 8.6 f.y. 1965-66 |
| 1966 | 6.961 | 24.473 | 18.655 | 9.5 f.y. 1966-67 |
| 1967 | 7.127 | 26.336 | 20.553 | 11.7 f.y. 1967-68 |
| 1968 | 7.262 | 29.215 | 22.844 | 12.8 f.y. 1968-69 |
| 1969 | 7.385 | 32.523 | 25.629 | 12.3 f.y. 1969-70 |
| 1972 | 7.825 | 42.400 | 33.835 | 16.7 f.y. 1972-73 |
| 1974 | 8.094 | 58.270 | 44.997 | 15.3 f.y. 1974-75 |

Taken from Tables I and IV, pp. 6 and 12, in Foot, 1977.

the next five years at an average annual rate of 3.18% -- almost double -- and 3.20% in 1965-70.³ It grew at similarly satisfying rates in Ontario. Table 1.4 shows that the province was enjoying growth in RPDI per person in excess of that of the nation in the 1950's, but in the early 1960's the growth was less than the nation's. In the late 1960's in both Ontario and the nation RPDI per person grew at a rate in excess of 3.0%. By the early 1970's both nation and province had abnormally high rates of RPDI growth as the result of high rates of growth in GNP and GPP. It was the slow down of population growth coupled with the abnormally high rates of RPDI growth that resulted in extraordinarily high growth rates of RPDI per person.

Because of the high rates of RPDI per person in the early 1970's, the recession of 1974-75 and the uncertain recovery from it in 1976 and 1977 seem the more severe for the fact that our expectations are coloured not only by the improvements in our standard of living in the 1960's, but also by the intensification in that improvement in the early 1970's. Yet, in the early years of the decline in enrolments we were unusually tolerant of increasing unit and total costs in the education industry, and the first responses to the new conditions were, in a sense, no response at all, perhaps because we had been lulled into complacency during the boom years. Elementary and secondary school systems and the teacher training faculties continued to behave much as they had in the 1960's. Increasing costs per unit of service were comparable to or greater than the increases associated with the period of rapid expansion.

However, this slow response was not associated with intolerable effects on improvements in RPDI per person. Table 1.5 shows why. It demonstrates how declining enrolments coincided with the years of extraordinarily high annual growth rates in RPDI/P. The first province to experience peak elementary-secondary enrolments was Saskatchewan in 1968-69. During the slide down there were many years left of good times. Quebec, the second largest province, peaked in 1969-70. Enrolments peaked for Ontario in 1971-72, by which time only British Columbia and Alberta had not yet done so. British Columbia got there in 1973-74, and only Alberta peaked after the beginning of the mid-1970's recessions.

³ Foot, D.K., et al., The Ontario Economy, 1977-1987, p. 51.

TABLE 1.4

PER CAPITA PERSONAL DISPOSABLE INCOME, ONTARIO, 1950-73

| YEAR | POPULATION ¹ (millions) | PERSONAL DISPOSABLE INCOME (\$ billion) | PDI PER CAPITA (\$000) | CONSUMER PRICE INDEX ² (1961 = 100.0) | REAL PDI (\$ billion) | REAL PDI PER CAPITA (\$000) | GROWTH IN RPDI/C (%) | AVERAGE ANNUAL GROWTH RPDI/C (%) |
|------|---------------------------------------|--------------------------------------------------|------------------------------|--------------------------------------------------------------|--------------------------|--------------------------------------|----------------------------|----------------------------------------------|
| 1950 | 4.471 | 5.208 | 1.165 | 79.6 | 6.543 | 1.463 | | |
| 1951 | 4.598 | 5.916 | 1.287 | 88.0 | 6.723 | 1.462 | 0 | |
| 1952 | 4.788 | 6.467 | 1.351 | 90.2 | 7.170 | 1.497 | 2.3 | |
| 1953 | 4.941 | 6.860 | 1.388 | 89.4 | 7.673 | 1.553 | 3.6 | 2.1 |
| 1954 | 5.115 | 7.090 | 1.386 | 89.9 | 7.887 | 1.542 | 0 | |
| 1955 | 5.266 | 7.644 | 1.452 | 90.1 | 8.484 | 1.611 | 4.4 | |
| 1956 | 5.405 | 8.273 | 1.531 | 91.4 | 9.051 | 1.675 | 3.8 | |
| 1957 | 5.636 | 9.066 | 1.609 | 94.3 | 9.614 | 1.706 | 1.8 | 2.3 |
| 1958 | 5.821 | 9.745 | 1.674 | 96.8 | 10.067 | 1.729 | 1.3 | |
| 1959 | 5.969 | 10.167 | 1.703 | 97.9 | 10.385 | 1.740 | .6 | |
| 1960 | 6.111 | 10.529 | 1.723 | 99.1 | 10.625 | 1.739 | 0 | |
| 1961 | 6.236 | 10.720 | 1.719 | 100.0 | 10.720 | 1.719 | 1.2 | |
| 1962 | 6.351 | 11.533 | 1.816 | 101.2 | 11.396 | 1.794 | 4.3 | 2.1 |
| 1963 | 6.481 | 12.320 | 1.901 | 103.0 | 11.961 | 1.846 | 2.8 | |
| 1964 | 6.631 | 13.106 | 1.976 | 104.8 | 12.506 | 1.886 | 2.1 | |
| 1965 | 6.788 | 14.301 | 2.107 | 107.4 | 13.316 | 1.962 | 3.8 | |
| 1966 | 6.961 | 15.850 | 2.277 | 111.4 | 14.228 | 2.044 | 4.0 | |
| 1967 | 7.127 | 17.233 | 2.418 | 115.4 | 14.933 | 2.095 | 2.4 | 3.3 |
| 1968 | 7.262 | 18.855 | 2.596 | 120.1 | 15.699 | 2.162 | 3.1 | |
| 1969 | 7.385 | 20.696 | 2.802 | 125.5 | 16.491 | 2.233 | 3.2 | |
| 1970 | 7.551 | 22.248 | 2.946 | 129.7 | 17.153 | 2.272 | 1.7 | |
| 1971 | 7.703 | 24.220 | 3.144 | 133.4 | 18.156 | 2.357 | 3.7 | 3.9 |
| 1972 | 7.825 | 26.929 | 3.441 | 139.8 | 19.263 | 2.462 | 4.4 | |
| 1973 | 7.939 | 31.175 | 3.927 | 150.5 | 20.714 | 2.609 | 5.9 | |

¹At 1 June.

²All items for all Canada.

Source: Ontario Statistical Review, various issues.

Taken from D. K. Foot, 1977, Table 37, p. 166 (with alterations).

TABLE 1.5

YEAR AND LEVEL OF PEAK ENROLMENTS BY PROVINCE¹
(Thousands of students)

| SCHOOL YEAR | NFLD. | P.E.I. | N.S. | N.B. | QUE. | ONT. | MAN. | SASK. | ATLA. | B.C. | YUKON | N.W.T. | CANADA |
|-------------|-------|--------|-------|-------|---------|---------|-------|-------|-------|-------|-------|--------|---------|
| 1968-69 | | | | | | | | 255.7 | | | | | 5,830.5 |
| 1969-70 | | | | | 1,658.5 | | | | | | | | |
| 1970-71 | | 30.7 | 217.5 | | | | 261.3 | | | | | | |
| 1971-72 | 163.7 | | | 177.1 | | 2,083.9 | | | | | | | |
| 1972-73 | | | | | | | | | | 573.8 | | 12.6 | |
| 1973-74 | | | | | | | | | | | 5.0 | | |
| 1974-75 | | | | | | | | | 451.4 | | | | |
| 1975-76 | | | | | | | | | | | | | |
| 1976-77 | | | | | | | | | | | | | |

¹ Includes Pre-Elementary to Grade 12 enrolment and enrolments in special classes in publicly controlled schools in all provinces and enrolment in Grade 13 in Ontario. Excludes DND schools.

Sources: 1968-69 to 1975-76 from Statistics Canada Elementary-Secondary School Enrolment, 1976-77.
1976-77 and 1977-78 from Statistics Canada Advance Statistics of Education, 1977-78.

Taken from table prepared by Dr. Wilfred Brown, Director, Economic Services, Canadian Teachers' Federation, for Seminar on Declining Enrolment, Ottawa, November 27-29, 1977.

Though the recent past was characterized by a marked increase in our standard of living, and though no "establishment economists" are forecasting a return to growth patterns like those before the 1974-75 recession, it ought not be implied that in the foreseeable future we will have rates of increases in GPP or RPDI per person appreciably lower than those of the 1960's. There are some optimistic indications in Table 1.6 which present a history of the behaviour of nine economic indicators for the decade 1967-77 and projections for the years 1977-87.

Average growth in real GPP (GPP discounted for inflation) in the good years 1967-72 was markedly higher than what we experienced in the recession plagued 1972-77 quinquennium, but average growth in real GPP is projected to grow at 5.4% during 1977-82 and 4.4% during 1982-87. This corresponds to seemingly very high increases in RPDI per person throughout the 1967-77 decade, and to rates of growth in this variable during the 1977-82 and 1982-87 period that compare favourably with our performance in the 1960-65 and 1965-70 periods.

However, this growth in disposable income per person is in large part due to estimated rates of employment growing faster than the population. In effect, a larger portion of the population will have to be employed to afford these rates of growth in per capita disposable income.

At present the labour force is growing more rapidly than the population. Average annual growth rates in the labour force of 3.6% for 1967-72 and 3.5% for 1972-77 were matched by average annual employment gains of 3.2% and 3.0%. It is projected that the labour force will continue to grow faster than the population in the 1977-82 and 1982-87 periods, but employment is also projected as growing marginally faster than the labour force.

The purport of this is that though unemployment rates will likely average about one percentage point higher during the present 1977-82 period than during the previous 1972-77 period, and even though the rates for the future 1982-87 period will be high by 1960's standards, the average unemployment rates of 1977-82 will be an improvement over 1977 (see Table 1.7), and those for 1982-87 should be marginally better than for the years 1972-77.

TABLE 1.6

THE PROVINCIAL ECONOMIC ENVIRONMENT, 1967 TO 1987
(Percent Average Annual Growth Rate)

| | HISTORY | | PROJECTION | |
|---------------------------------------------------------|---------|----------------------|------------|---------|
| | 1967-72 | 1972-77 ^a | 1977-82 | 1982-87 |
| Real Gross Provincial Product ^b | 6.1 | 3.6 | 5.4 | 4.4 |
| Population | 1.9 | 1.6 | 1.4 | 1.4 |
| Gross Immigration (thousands) | 78 | 94 | 75 | 75 |
| Labour Force | 3.6 | 3.5 | 2.2 | 2.0 |
| Employment | 3.2 | 3.0 | 2.4 | 2.1 |
| Unemployment Rate (%) | 4.2 | 5.5 | 6.5 | 5.3 |
| Real Personal Disposable Income per Person | 4.2 | 4.0 | 3.3 | 3.3 |
| Real Personal Disposable Income per Employed Person | 2.8 | 2.6 | 2.3 | 2.5 |
| Government (Ontario) Surplus or Deficit (\$ billion) | -0.21 | -1.25 | -2.94 | -8.35 |

^a Estimates used where necessary.

^b Deflated by the GNP deflator.

Source: Institute for Policy Analysis.

Taken from D. K. Foot, "Resources and Constraints: Public Education and the Economic Environment in Ontario, 1978-1987," a paper prepared for The Commission on Declining School Enrolments, January, 1978.

TABLE 1.7
UNEMPLOYMENT RATES BY AGE, ONTARIO, 1956-77

| YEAR | TOTAL | | | | |
|------|----------|-------------------|-------|-------|-----|
| | All ages | 14-19 | 20-24 | 25-44 | 45+ |
| 1956 | 2.4 | 4.3 | 3.2 | 2.0 | 2.1 |
| 1957 | 3.4 | 6.4 | 5.1 | 2.9 | 2.7 |
| 1958 | 5.4 | 11.2 | 8.0 | 4.6 | 4.2 |
| 1959 | 4.5 | 9.5 | 5.5 | 3.7 | 3.9 |
| 1960 | 5.4 | 11.4 | 6.9 | 4.5 | 4.5 |
| 1961 | 5.5 | 10.9 | 7.2 | 4.6 | 4.8 |
| 1962 | 4.3 | 9.9 | 5.4 | 3.5 | 3.8 |
| 1963 | 3.8 | 9.9 | 4.9 | 2.9 | 3.2 |
| 1964 | 3.2 | 8.7 | 3.9 | 2.4 | 2.7 |
| 1965 | 2.5 | 6.7 | 3.0 | 1.7 | 2.3 |
| 1966 | 2.5 | 6.7 | 3.4 | 1.7 | 2.2 |
| 1967 | 3.1 | 8.1 | 3.9 | 2.5 | 2.4 |
| 1968 | 3.5 | 9.2 | 4.7 | 2.6 | 2.6 |
| 1969 | 3.1 | 8.2 | 3.9 | 2.3 | 2.6 |
| 1970 | 4.3 | 10.8 | 6.0 | 3.2 | 3.0 |
| 1971 | 5.2 | 13.1 | 7.9 | 3.6 | 3.8 |
| 1972 | 4.8 | 11.3 | 7.6 | 3.4 | 3.5 |
| 1973 | 4.0 | 9.3 | 6.7 | 3.0 | 2.6 |
| 1974 | 4.1 | 9.2 | 6.5 | 3.1 | 2.7 |
| 1975 | 6.3 | (11.2% age 15-24) | | | |
| 1976 | 6.2 | (11.2% age 15-24) | | | |
| 1977 | 7.0* | | | | |

Source: Statistics Canada: Monthly Labour Force Survey (to 1974);
Canadian Statistical Review (1975, 1976, and 1977 partial);
Ontario Budget 1977 (age 15-24, 1975, 1976).

*Average of first eleven months.

Growth in RPDI per employed person in 1972-77 has also fallen below what it was in 1967-72, and is not projected as again being that high in the coming decade. This is tantamount to saying that continued improvement in our standard of living comparable to that of the 1960's is contingent upon an increasing proportion of our population being employed. It is also the case in these projections that both per person and per worker real disposable income growth rates are dependent upon (or at least associated with) increasing provincial government deficits.

Employment and unemployment figures are notorious for the range of interpretations made of them and the inferences about public policy drawn from them. However, these statistics and projections are offered only in the context of declining enrolments and certainly no cause or effect relationships between declining enrolments and overall unemployment rates is suggested here.

It will be noted in the discussion of public finance below, and again in the final chapter of this report, that the rapid increases in total education costs in recent decades were not in the main a result of increasing enrolments. Unless we choose to assume some remarkable diseconomies-of-scale for the education industry, we must assume that the greater part of the increase in expenditures was due to increases in total wages, in particular teachers' salaries. Both improving salaries and changing teacher-student ratios contributed to the increasing total wage bill. Though general inflation will be shown to have accounted for the greater part of these salary increases, teachers did in fact enjoy improving relative and real wages.

Attracting larger numbers of people into teaching over a rather short period of time would, of course, be expected to have been associated with improving teacher salaries, but the degree of that improvement would also be assumed to have been determined by employment opportunities elsewhere for people with educations and qualifications comparable to teachers. These opportunities were, however, to such an important degree associated with the public sector that it is more appropriate to discuss them under public finance than as an aspect of general economic conditions.

In Table 1.2 above it was shown that throughout the 1960's, when education expenditures grew from 23.2% of provincial expenditures to 32.5%,

expenditures of the Ministry of Health stayed within a narrow range of variation. The percentage was moderately higher in some years of the 1960's than at the end and beginning of the decade, but not far from the 9.1% in 1960-61 and 10.0% in 1969-70. Today expenditures for health exceed those of education as a proportion of total provincial expenditures, and expenditures for health and education account for more than half the provincial budget. The competitive claims of health and education, individually and jointly, are an exciting aspect of contemporary economics and politics. But the phenomenon of rising health expenditures in the 1970's, like that of increased employment opportunities in the public sector during the 1960's, will be viewed as part of the business of public finance rather than as aspects of general economic conditions.

The following summary statements then, about general economic conditions as a part of the context of declining enrolments, are most appropriately limited to generalizations about recent developments related to gross provincial product and personal disposable income per person and per worker.

We have already seen that the mid-1970's (1972-1977) was a period of more modest average annual growth in real GPP (3.6%) than we became accustomed to in the 1960's and the first years of the 1970's (6.1% average for 1967-72). This growth in real GPP was combined with an average annual growth in population (1.6%) that was somewhat modest by 1960's standards (2.1% annual average). Those GPP and population growths, combined with a slower rate of growth in public expenditures as a percentage of GPP (see Table 1.3) afforded an average annual growth of 4.0% for 1972-77 in RPDI per person compared with 4.2% for 1967-72. Projected average annual growth rates, mentioned previously, of 5.4% and 4.4% in real GPP for 1977-82 and 1982-87, respectively, in combination with projected average population growth rates of 1.4% throughout both periods, should produce average annual growth rates in real disposable income per person of 3.3% for those ten years.

However, the projected maintenance of RPDI/P growth rates in the coming decade comparable to those in the late 1960's is dependent upon

- a slowly growing population (1.4%)
- a considerably faster growing labour force (2.1%)
- an employed labour force growing slightly faster than the labour force (i.e., a slow reduction in unemployment rates)
- government expenditures growing more slowly than the historical averages
- increasing provincial government deficits.

If we are to assume that there exists a determination to maintain the rates of improvement in our standard of living, we can expect that reduced demands for services from the education sector (i.e., declining enrolments) will be associated with a corresponding reduction in the claims of education on government expenditures. There may indeed exist such a determination, if we can judge by a general propensity to accept declining average annual increases in RPDI per worker, which appears to be associated with maintaining relatively high increases in RPDI per person.

Public Finance Decisions

Our public schools would no doubt have responded very differently to the increased demands for their services because of the high birth rates of the late 1940's and of the 1950's had the nation and the province experienced different economic conditions. But neither population developments nor economic conditions determined what our schools would be. The style, costs and even the scale of operations of our school systems are the products of policy decisions, made in the main by school boards and the provincial government. The provincial government is only one degree removed from responsibility for school board policy decisions, since the province makes policy determining the authority and autonomy of the school boards. All of this is to say that our schools are what they are as the result of policy decisions made by a government responsible to a democratically elected legislative assembly.

The scale and complexity of the total education system of the province are such that it is no simple matter to describe, much less to administer it or preside over and direct its evolution. As with other complex systems,

we can only know a tiny fraction of it by direct experience. What we learn about it we learn in the main from abstractions. Those who would administer, control or guide it are also dependent upon abstractions, most of which exist on paper or on computer tapes. They are more-or-less perfect reflections of reality. Aspects of the system are abstracted as stocks and flows of students, as tables of organization, lines of authority, inventories of supplies and capital, and systems of communication. Abstractions of the system also exist in the forms of accounts, financial statements and budgets. These financial documents are potentially the most inclusive, complete and integratable abstractions available. At best they can abstract the system as a set of financial flows that are relevant to all its internal activities and external relations.

In any event, one rarely sets out to learn about, to influence or control a great, modern organization without resorting to its financial abstractions. These financial abstractions of public activity are probably universal connotations of the term public finance.

Public finance can also be construed as an instrument, perhaps the main instrument, of public policy. In this sense financial abstractions of public activities, and of government itself, exist to facilitate the implementation of decisions, decisions bearing upon the allocation of public revenues among competing claims for public goods and services, and upon the level of public revenues to be raised and the apportioning of the related tax burden.

Finally, it should also be noted that public finance is science. It is that part of economic science that deals with our communal economic behaviour and is concerned with sociological determinants of variations in behaviour, and the redistribution of income.

To an important degree, any conscious effort to direct the evolution of our education system requires contemplating it with the aid of financial abstractions and attempting to determine the activities of some part of it by influencing the allocation of funds to the system or within the system. To a limited degree we can reverse this order. We can study the changing patterns of allocation of funds to education and within the system, and then discuss the efforts to direct the evolution of the system that

motivated those changes.

In Tables 1.2 and 1.3 it was shown that total provincial expenditures (more correctly the expenditure estimates, which may vary from actual expenditures considerably in a given fiscal year, but are much closer approximations of actual expenditures over a series of years) grew from \$353 million in 1950-51 to \$8,917 million in 1974-75. Education expenditures (again the estimates) grew from \$33 million in 1950-51 to \$2,342 million in 1974-75, and from 15.9% of total expenditures in 1950-51 to 27.2% in 1974-75 after peaking at 32.5% in 1969-70.

These tables include expenditures for universities and colleges, but do not include expenditures for elementary and secondary education by the boards financed from other than provincial grants. Table 1.8 shows the history of school board expenditures for the province from 1942 to 1972 and the annual percentage increases.

"Double digit" annual percentage increases became the norm for elementary school expenditures in 1947 and for secondary school expenditures in 1946. Increases for elementary schools of 7.86% and 8.51% in 1971 and 1972 respectively were the lowest since 1947 with the exceptions of 1962 (7.63%) and 1963 (3.35%). Increases of 9.24% and 8.76% for secondary schools in 1971 and 1972 were the lowest since 1944 with the exception of 1953 (6.19%).

Table 1.9 shows the grant components of board expenditures for the same years for elementary and secondary schools. Total elementary and secondary grants grew from \$7,609,897 in 1942 to \$1,155,191,000 in 1972, and from 14.37% of board expenditures in 1942 to 59.05% in 1972. After rising to 42.35% in 1945 from 15.26% in 1944, grants went below 30% only once (29.53% in 1956). Grants were almost exactly the same percent of total expenditures in 1964 that they were in 1945 (42.42% and 42.35% respectively), they grew very slowly to 44.16% in 1968, and then in four annual steps they climbed to 59.05% in 1972. Neither the years of marked increase in total provincial expenditures nor the years of the largest increase in the provincial contribution to board expenditures are notably correlated to the years of most rapid increases in enrolments (compare Tables 1.8 and 1.9 with enrolment increase rates in Table 1.12).

TABLE 1.8

INCREASE IN SCHOOL BOARD EXPENDITURES

1942 TO 1972 INCLUSIVE

| CALENDAR YEAR | TOTAL ELEMENTARY | | | SECONDARY | | | TOTAL ELEMENTARY AND SECONDARY | | |
|---------------|------------------|-------------|------------------|---------------|------------|------------------|--------------------------------|-------------|------------------|
| | Expenditure | Increase | Percent Increase | Expenditure | Increase | Percent Increase | Expenditure | Increase | Percent Increase |
| 1942 | \$ 35,891,261 | \$ - | - | \$ 17,053,819 | \$ - | - | \$ 52,945,080 | \$ - | - |
| 1943 | 36,917,655 | 1,026,394 | 2.86 | 17,271,477 | 217,658 | 1.28 | 54,189,132 | 1,244,052 | 2.35 |
| 1944 | 39,855,269 | 2,937,614 | 7.96 | 17,944,262 | 672,785 | 3.90 | 57,799,531 | 3,610,399 | 6.66 |
| 1945 | 42,853,352 | 2,998,083 | 7.52 | 19,673,618 | 1,729,356 | 9.64 | 62,526,970 | 4,727,439 | 8.18 |
| 1946 | 46,382,040 | 3,528,688 | 8.23 | 22,017,952 | 2,344,334 | 11.92 | 68,399,992 | 5,873,022 | 9.39 |
| 1947 | 53,463,128 | 7,081,088 | 15.27 | 25,336,336 | 3,318,384 | 15.07 | 78,799,464 | 10,399,472 | 15.20 |
| 1948 | 61,488,236 | 8,025,108 | 15.01 | 28,698,045 | 3,361,709 | 13.27 | 90,186,281 | 11,386,817 | 14.45 |
| 1949 | 67,906,010 | 6,417,774 | 10.44 | 32,193,261 | 3,495,216 | 12.18 | 100,099,271 | 9,912,990 | 10.99 |
| 1950 | 77,632,869 | 9,726,859 | 14.32 | 35,404,022 | 3,210,761 | 9.97 | 113,036,891 | 12,937,620 | 12.93 |
| 1951 | 94,261,615 | 16,628,746 | 21.42 | 42,178,906 | 6,774,884 | 19.14 | 136,440,521 | 23,403,630 | 20.70 |
| 1952 | 108,722,126 | 14,460,511 | 15.34 | 48,891,066 | 6,712,160 | 15.91 | 157,613,192 | 21,172,671 | 15.52 |
| 1953 | 119,543,551 | 10,821,425 | 9.95 | 51,916,371 | 3,025,305 | 6.19 | 171,459,922 | 13,846,730 | 8.79 |
| 1954 | 134,462,259 | 14,918,708 | 12.48 | 58,751,193 | 6,834,822 | 13.17 | 193,213,452 | 21,753,530 | 12.69 |
| 1955 | 161,116,710 | 26,654,451 | 19.82 | 76,208,966 | 17,457,773 | 29.72 | 237,325,676 | 44,112,224 | 22.83 |
| 1956 | 182,063,242 | 20,946,532 | 13.00 | 86,103,855 | 9,894,889 | 12.98 | 268,167,097 | 30,841,421 | 13.00 |
| 1957 | 206,488,438 | 24,425,196 | 13.42 | 99,709,745 | 13,605,890 | 15.80 | 306,198,183 | 38,031,086 | 14.18 |
| 1958 | 235,921,547 | 29,533,109 | 14.30 | 117,359,610 | 17,649,865 | 17.70 | 353,281,157 | 47,082,974 | 15.38 |
| 1959 | 270,824,178 | 34,902,631 | 14.79 | 139,770,695 | 22,411,085 | 19.10 | 410,594,873 | 57,313,716 | 16.22 |
| 1960 | 299,000,401 | 28,176,223 | 10.40 | 155,623,200 | 15,852,505 | 11.34 | 454,623,601 | 44,028,728 | 10.72 |
| 1961 | 324,734,661 | 25,734,260 | 8.61 | 177,960,689 | 22,337,489 | 14.35 | 502,695,350 | 48,071,749 | 10.57 |
| 1962 | 349,503,369 | 24,768,708 | 7.63 | 200,318,988 | 22,358,299 | 12.56 | 549,822,357 | 47,127,007 | 9.38 |
| 1963 | 361,192,884 | 11,689,515 | 3.35 | 221,967,844 | 21,648,856 | 10.81 | 583,160,728 | 33,338,371 | 6.06 |
| 1964 | 408,734,000 | 47,541,116 | 13.16 | 264,919,000 | 42,951,156 | 19.35 | 673,653,000 | 90,492,272 | 15.52 |
| 1965 | 456,842,000 | 48,108,000 | 11.77 | 300,992,000 | 36,073,000 | 13.62 | 757,834,000 | 84,181,000 | 12.50 |
| 1966 | 527,084,000 | 70,242,000 | 15.38 | 351,363,000 | 50,371,000 | 16.74 | 878,447,000 | 120,613,000 | 15.92 |
| 1967 | 618,718,000 | 91,634,000 | 17.39 | 492,424,000 | 78,061,000 | 22.22 | 1,048,142,000 | 169,695,000 | 19.32 |
| 1968 | 748,963,000 | 130,245,000 | 21.05 | 513,417,000 | 83,993,000 | 19.56 | 1,262,380,000 | 214,238,000 | 20.44 |
| 1969 | 854,029,000 | 105,066,000 | 14.03 | 603,025,000 | 89,608,000 | 17.45 | 1,457,054,000 | 194,674,000 | 15.42 |
| 1970 | 975,145,000 | 121,116,000 | 14.18 | 685,876,000 | 82,851,000 | 13.74 | 1,661,021,000 | 203,967,000 | 14.00 |
| 1971 | 1,051,785,000 | 76,640,000 | 7.86 | 749,470,000 | 63,594,000 | 9.27 | 1,801,255,000 | 140,234,000 | 8.44 |
| 1972 | 1,141,318,000 | 89,533,000 | 8.51 | 815,142,000 | 65,672,000 | 8.76 | 1,956,460,000 | 155,205,000 | 8.62 |

Source: Reports of the Minister of Education with figures adjusted for purposes of comparison.

Taken from Committee on the Costs of Education, Interim Report Number Seven, 1975, p. 69.

TABLE 1.9

SCHOOL BOARD EXPENDITURES AND GENERAL LEGISLATIVE GRANTS

1942 TO 1972

| CALENDAR YEAR | TOTAL ELEMENTARY | | | SECONDARY | | | TOTAL ELEMENTARY AND SECONDARY | | |
|------------------|------------------|--------------|---------------------|---------------|--------------|---------------------|--------------------------------|---------------|---------------------|
| | Expenditure | Grant | Grant Percentage | Expenditure | Grant | Grant Percentage | Expenditure | Grant | Grant Percentage |
| 1942 | \$ 35,891,261 | \$ 5,597,680 | 15.60 | \$ 17,053,819 | \$ 2,012,217 | 11.80 | \$ 52,945,080 | \$ 7,609,897 | 14.37 |
| 1943 | 36,917,655 | 6,119,702 | 16.58 | 17,271,477 | 1,984,695 | 11.49 | 54,189,132 | 8,104,397 | 14.96 |
| 1944 | 39,855,269 | 6,758,188 | 16.96 | 17,944,262 | 2,063,208 | 11.50 | 57,799,531 | 8,821,396 | 15.26 |
| 1945 | 42,853,352 | 17,810,944 | 41.56 | 19,673,618 | 8,667,969 | 44.06 | 62,526,970 | 26,478,913 | 42.35 |
| 1946 | 46,382,040 | 19,412,951 | 41.85 | 22,017,952 | 9,883,576 | 44.89 | 68,399,992 | 29,296,527 | 42.83 |
| 1947 | 53,463,128 | 19,488,153 | 36.45 | 25,336,336 | 10,723,572 | 42.32 | 78,799,464 | 30,211,725 | 38.34 |
| 1948 | 61,488,236 | 20,267,473 | 32.96 | 28,698,045 | 12,318,062 | 42.92 | 90,186,281 | 32,585,535 | 36.13 |
| 1949 | 67,906,010 | 24,378,235 | 35.90 | 32,193,261 | 13,220,202 | 41.07 | 100,099,271 | 37,598,437 | 37.56 |
| 1950 | 77,632,869 | 28,525,530 | 36.74 | 35,404,022 | 14,141,891 | 39.94 | 113,036,891 | 42,667,421 | 37.75 |
| 1951 | 94,261,615 | 31,635,972 | 33.56 | 42,178,906 | 15,727,445 | 37.29 | 136,440,521 | 47,363,417 | 34.71 |
| 1952 | 108,722,126 | 36,430,319 | 33.51 | 48,891,066 | 17,548,308 | 35.89 | 157,613,192 | 53,978,627 | 34.25 |
| 1953 | 119,543,551 | 38,438,156 | 32.15 | 51,916,371 | 19,453,389 | 37.47 | 171,459,922 | 57,891,545 | 33.76 |
| 1954 | 134,462,259 | 45,766,891 | 34.04 | 58,751,193 | 22,200,115 | 37.78 | 193,213,452 | 67,967,006 | 35.18 |
| 1955 | 161,116,710 | 49,777,520 | 30.90 | 76,208,966 | 22,584,611 | 29.63 | 237,325,676 | 72,362,131 | 30.49 |
| 1956 | 182,063,242 | 54,887,350 | 30.15 | 86,103,855 | 24,302,130 | 28.22 | 268,167,097 | 79,189,480 | 29.53 |
| 1957 | 206,488,438 | 67,861,608 | 32.87 | 99,709,745 | 29,115,931 | 29.20 | 306,198,183 | 96,977,539 | 31.67 |
| 1958 | 235,921,547 | 87,944,813 | 37.28 | 117,359,610 | 40,381,114 | 34.40 | 353,281,157 | 128,325,927 | 36.32 |
| 1959 | 270,824,178 | 100,321,319 | 37.04 | 139,770,695 | 48,264,763 | 34.53 | 410,594,873 | 148,586,082 | 36.19 |
| 1960 | 299,000,401 | 107,702,554 | 36.02 | 155,623,200 | 51,259,978 | 32.94 | 454,623,601 | 158,962,532 | 34.97 |
| 1961 | 324,734,661 | 121,576,596 | 37.44 | 177,960,689 | 59,969,896 | 33.70 | 502,695,350 | 181,546,492 | 36.12 |
| 1962 | 349,503,369 | 138,590,992 | 39.65 | 200,318,988 | 61,863,827 | 30.88 | 549,822,357 | 200,454,819 | 36.46 |
| 1963 | 361,192,884 | 154,005,981 | 42.64 | 221,967,844 | 76,038,948 | 34.26 | 583,160,728 | 230,044,929 | 39.45 |
| 1964 | 408,734,000 | 185,402,000 | 45.36 | 264,919,000 | 100,339,000 | 37.88 | 673,653,000 | 285,741,000 | 42.42 |
| 1965 | 456,842,000 | 206,050,000 | 45.10 | 300,992,000 | 119,911,000 | 39.84 | 757,834,000 | 325,961,000 | 43.01 |
| 1966 | 527,084,000 | 238,596,000 | 45.27 | 351,363,000 | 140,090,000 | 39.87 | 878,447,000 | 378,686,000 | 43.11 |
| 1967 | 618,718,000 | 292,937,000 | 47.35 | 429,424,000 | 167,663,000 | 39.04 | 1,048,142,000 | 460,600,000 | 43.94 |
| 1968 | 748,963,000 | 368,818,000 | 49.24 | 513,417,000 | 188,589,000 | 36.73 | 1,262,380,000 | 557,407,000 | 44.16 |
| 1969 | 854,029,000 | 426,809,000 | 50.00 | 603,025,000 | 252,777,000 | 41.92 | 1,457,054,000 | 679,586,000 | 46.64 |
| 1970 | 975,145,000 | 511,440,000 | 52.45 | 685,876,000 | 333,139,000 | 48.57 | 1,661,021,000 | 844,579,000 | 50.85 |
| 1971 | 1,051,785,000 | 601,414,000 | 57.18 | 749,470,000 | 411,090,000 | 54.85 | 1,801,255,000 | 1,012,504,000 | 56.21 |
| 1972 | 1,141,318,000 | 687,358,000 | 60.23 | 815,142,000 | 467,833,000 | 57.93 | 1,956,460,000 | 1,155,191,000 | 59.05 |

Source: Reports of the Minister of Education with figures adjusted for purposes of comparison

Taken from Committee on the Costs of Education, Interim Report Number Seven, 1975, p. 84

Scale of operation is, of course, a part of the explanation of rapidly increasing expenditures. Table 1.10 shows that total elementary and secondary enrolments that increased by about 50% from 1869-70 to 1944-45 (though they had been somewhat higher in the late 1920's and in the 1930's) increased by more than 200% between 1944-45 and 1974-75. Total numbers of teachers increased about 330%.

It is evident, however, that the growth of school enrolments does not explain the greater part of the growth of school expenditures that have characterized the postwar period. Commenting on this weak enrolment-expenditure relationship, Richard Bird sums up the purport of the relevant studies this way:

A recent estimate for Canada as a whole over the twenty years 1957-1976 is that less than 20 per cent of the total increase in expenditures on elementary and secondary education may be attributed to higher enrolment (Perry, 1977). Earlier estimates for Ontario alone show comparable results (Cameron, 1972, 84). The fastest increase in provincial educational expenditures was in the early 1960's, for example (Foot, 1977): a detailed analysis of this period attributes only 12 per cent of this increase to the effects of increased enrolment (Selby-Smith and Skolnik, 1969). Most of the past rapid growth of educational expenditures, then, must have been due to increases in either costs (whether resulting from inflationary general price rises or from rising real incomes of teachers) or quality (e.g., lower pupil/teacher ratios).⁴

Table 1.11 demonstrates that teachers' salaries have indeed increased very rapidly in the post-war years. The median of salaries for all teachers in 1975-76 was more than ten times what it was in 1944-45. The median salary of secondary teachers had increased more than seven fold, and of elementary teachers about eleven fold.

These increases are much less striking when compared with the behaviour of wages generally. For the years 1945-46 to 1974-75 (two years less than the series in Table 1.11), the average income of all employees in Ontario filling taxable returns grew from \$1,885 to \$12,284 (6.5 times).⁵

Though more will be said about teachers' salaries and the costs of education in the final chapter of this report, it can be noted here that

⁴ Bird, R.M., Financing Education in Ontario: Issues and Choices, a paper prepared for The Commission on Declining School Enrolments, January, 1978.

⁵ Stager, D., 1978, p. 21.

TABLE 1.10
ENROLMENTS AND TEACHERS IN PUBLICLY CONTROLLED SCHOOLS,
ONTARIO, 1870 TO 1975

| YEAR | ENROLMENT ('000) | | | TEACHERS ('000) | | |
|---------|------------------|------------|-----------|-----------------|-------|---------|
| | Total | Elementary | Secondary | Total | Males | Females |
| 1869-70 | 433.3 | 351.2 | -- | 5.2 | 2.8 | 2.4 |
| 1874-75 | 490.0 | 465.5 | 24.5 | 5.4 | 2.6 | 2.8 |
| 1879-80 | 496.0 | 467.9 | 28.0 | 7.4 | 3.3 | 4.1 |
| 1884-85 | 486.7 | 463.3 | 23.4 | 8.0 | 2.7 | 5.3 |
| 1889-90 | 516.0 | 484.2 | 31.8 | 9.2 | 2.7 | 6.5 |
| 1894-95 | 518.7 | 476.1 | 42.6 | 10.2 | 2.8 | 7.4 |
| 1899-00 | 495.5 | 456.3 | 39.2 | 10.8 | 2.6 | 8.2 |
| 1904-05 | 487.6 | 442.7 | 45.0 | 10.6 | 2.5 | 8.1 |
| 1909-10 | 510.7 | 464.0 | 46.7 | 11.7 | 2.2 | 9.5 |
| 1914-15 | 571.4 | 516.5 | 52.5 | 13.5 | 2.3 | 11.2 |
| 1919-20 | -- | 558.8 | -- | 15.3 | 2.2 | 13.1 |
| 1924-25 | 658.9 | 574.5 | 82.5 | 18.0 | 3.1 | 14.9 |
| 1929-30 | 706.4 | 606.9 | 98.6 | 20.1 | 4.0 | 16.1 |
| 1934-35 | 678.2 | 552.6 | 118.9 | 21.4 | 5.5 | 15.9 |
| 1939-40 | 663.7 | 527.7 | 127.3 | 22.0 | 6.5 | 15.5 |
| 1944-45 | 651.0 | 525.0 | 118.4 | 21.8 | 4.8 | 17.0 |
| 1949-50 | 745.3 | 604.1 | 134.8 | 25.1 | 7.4 | 17.7 |
| 1954-55 | 979.6 | 803.6 | 169.0 | 33.0 | 10.0 | 23.0 |
| 1959-60 | 1319.2 | 1081.6 | 237.6 | 45.4 | 14.4 | 30.9 |
| 1964-65 | 1673.8 | 1278.5 | 395.3 | 64.1 | 25.0 | 39.1 |
| 1969-70 | 1986.8 | 1456.1 | 530.7 | 89.9 | 36.0 | 53.8 |
| 1974-75 | 1994.5 | 1404.8 | 589.7 | 94.2 | 42.0 | 52.2 |

Sources: M.C. Urquhart and K. Buckley, Historical Statistics of Canada; Ontario Statistics, 1976, Table 6.7; and Statistics Canada, no. 81.202.

Taken from D. Stager, "Elementary and Secondary School Teachers Salaries, 1900 to 1975, "a paper prepared for The Commission on Declining School Enrolments, February, 1978, p. 40

MEDIAN SALARIES, PUBLIC AND SEPARATE ELEMENTARY AND SECONDARY SCHOOLS
TEACHERS AND PRINCIPALS, ONTARIO, 1944 TO 1976

| YEAR | PUBLIC | | | SEPARATE | | | SECONDARY | | | ALL TEACHERS | |
|---------|-------------------------------|----------|----------|----------|---------|--------|-----------|----------|----------|--------------|-------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Total | Total |
| 1944-45 | \$ 1,746 | \$ 1,122 | \$ 1,176 | \$ 1,043 | \$ 879 | \$ 892 | \$ 2,607 | \$ 1,992 | \$ 2,308 | \$ 1,301 | |
| 1945-46 | 1,822 | 1,217 | 1,258 | 1,101 | 964 | 979 | 2,725 | 2,022 | 2,374 | 1,413 | |
| 1946-47 | 1,953 | 1,415 | 1,479 | 1,305 | 1,044 | 1,083 | 2,782 | 2,225 | 2,524 | 1,514 | |
| 1947-48 | 2,205 | 1,677 | 1,720 | 1,493 | 1,182 | 1,202 | 3,002 | 2,517 | 2,793 | 1,797 | |
| 1948-49 | 2,328 | 1,814 | 1,885 | 1,676 | 1,291 | 1,323 | 3,205 | 2,722 | 2,992 | 1,974 | |
| 1949-50 | 2,543 | 1,979 | 2,001 | 1,797 | 1,387 | 1,426 | 3,382 | 2,941 | 3,196 | 2,109 | |
| 1950-51 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |
| 1951-52 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |
| 1952-53 | 3,132 | 2,549 | 2,655 | 2,196 | 1,797 | 1,813 | 4,390 | 3,907 | 4,201 | 2,771 | |
| 1953-54 | 3,293 | 2,656 | 2,773 | 2,346 | 1,907 | 1,951 | 4,550 | 4,056 | 4,366 | 2,916 | |
| 1954-55 | 3,463 | 2,806 | 2,940 | 2,407 | 2,005 | 2,023 | 4,718 | 4,187 | 4,508 | 3,008 | |
| 1955-56 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 3,236 | |
| 1956-57 | 3,989 | 3,219 | 3,373 | 2,553 | 2,280 | 2,312 | 5,347 | 4,735 | 5,127 | 3,490 | |
| 1957-58 | 4,251 | 3,417 | 3,576 | 2,850 | 2,445 | 2,485 | 5,880 | 5,260 | 5,643 | 3,738 | |
| 1958-59 | 4,544 | 3,670 | 3,828 | 3,089 | 2,672 | 2,713 | 6,442 | 5,769 | 6,177 | 4,026 | |
| 1959-60 | 4,732 | 3,902 | 4,050 | 3,195 | 2,923 | 2,949 | 7,103 | 6,410 | 6,839 | 4,289 | |
| 1960-61 | 4,881 | 4,044 | 4,197 | 3,465 | 3,149 | 3,182 | 7,298 | 6,579 | 7,043 | 4,496 | |
| 1961-62 | 4,887 | 4,136 | 4,276 | 3,593 | 3,318 | 3,359 | 7,316 | 6,491 | 7,026 | 4,652 | |
| 1962-63 | 4,911 | 4,206 | 4,377 | 3,696 | 3,470 | 3,504 | 7,194 | 6,484 | 6,923 | 4,804 | |
| 1963-64 | 5,018 | 4,291 | 4,464 | 3,869 | 3,611 | 3,661 | 7,242 | 6,459 | 7,003 | 4,922 | |
| 1964-65 | 5,264 | 4,457 | 4,658 | 4,038 | 3,494 | 3,927 | 7,473 | 6,567 | 7,204 | 5,182 | |
| 1965-66 | 5,527 | 4,745 | 4,915 | 4,466 | 4,141 | 4,191 | 7,792 | 6,787 | 7,478 | 5,489 | |
| 1966-67 | 5,759 | 4,879 | 5,104 | 4,886 | 4,388 | 4,442 | 7,956 | 6,798 | 7,503 | 5,732 | |
| 1967-68 | 7,204 | 6,087 | 6,268 | 6,306 | 5,706 | 5,812 | 9,389 | 8,074 | 8,933 | 6,900 | |
| 1968-69 | 7,749 | 6,249 | 6,549 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |
| 1969-70 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |
| 1970-71 | Total Elementary ¹ | | | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |
| 1971-72 | Males | Females | Total | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | | |
| 1972-73 | 10,500* | 8,600* | 8,774* | n.a. | n.a. | n.a. | | | 12,711 | 9,828 | |
| 1973-74 | 11,501 | 9,292 | 9,704 | n.a. | n.a. | n.a. | 14,414 | 12,251 | 13,734 | 10,727 | |
| 1974-75 | 13,255 | 10,631 | 11,015 | n.a. | n.a. | n.a. | 16,327 | 13,799 | 15,527 | 12,423 | |
| 1975-76 | 14,521 | 11,521 | 12,121 | n.a. | n.a. | n.a. | 17,921 | 15,221 | 17,121 | 13,521 | |

*estimated

¹ includes public and separate school teachers.

Sources: Statistics Canada, Salaries and Qualifications of Teachers in Public Elementary and Secondary Schools, (no. 81-202), published annually (biennially since 1972, and not in 1950-51, 1951-52, 1955-56).

Taken from Stager, 1978, p. 20.

teachers' salaries have not only increased very rapidly since about 1945, they have generally provided teachers with increases in excess of consumer price index changes (see Stager, 1978). It is also the case that most categories of teachers have probably enjoyed improving relative wages through much of this period, though this claim is subject to some qualifiers (see Stager, 1978, pp. 8-12).

The structure of the teaching force has also changed, of course. There are more secondary school teachers in proportion to elementary school teachers. This is a result of increasing secondary school participation rates, as well as of the advance of the large birth cohorts through elementary schools and into secondary schools. More elementary teachers now have university degrees (for which they receive salary increments). Both increased secondary school participation and higher education attainments for elementary teachers are generally accepted as improvements in the quality of our education system. They are improvements that have required a commitment to higher total and unit costs of education services. An even more generally accepted index of quality is student-teacher ratios. Table 1.12 shows the improvements in pupil-teacher ratios from 1946-47 to 1973-74, and the increase in enrolments that had to be met each year before those ratios could be reduced. The general trends of both elementary and secondary school pupil-teacher ratios is the same. The improvement for secondary schools has been more constant, however, even during the years of fastest growing enrolments from 1957-58 to 1963-64.

Clearly, the province has long been committed to affording more labour intensive educational experiences to an increasing number of students, for more years, under the tutelage of teachers with rising average education qualifications and receiving improving real salaries, and in most cases probably improving relative salaries. This commitment was the result of a series of policy decisions that had to be reaffirmed with the making of every budget.

Public finance decisions affecting the elementary and secondary schools are not made by authorities concerned only for the education of children. The expenditures on education presented in Table 1.2 include the expenditures of the Ministries of Education and Colleges and Universities (the latter having been given this name in 1971 and having been

TABLE 1.12

PUPIL-TEACHER RATIOS IN ONTARIO SCHOOLS, 1946 TO 1975 AND ANNUAL PERCENTAGE INCREASES IN ENROLMENTS

| YEAR | PUBLIC | | | SEPARATE | | | ELEMENTARY | | | SECONDARY | | | TOTAL | |
|---------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|------------|------|
| | Pupil-Teacher Ratio | % Increase Enrolments | Pupil-Teacher Ratio | % Increase Enrolments | Pupil-Teacher Ratio | % Increase Enrolments | Pupil-Teacher Ratio | % Increase Enrolments | Pupil-Teacher Ratio | % Increase Enrolments | Pupil-Teacher Ratio | % Increase Enrolments | % INCREASE | % |
| 1946-47 | | | | | | | 30.0 | | | | 26.1 | | | 1.6 |
| 1947-48 | | 2.7 | | 2.3 | | | 30.0 | | | | 24.4 | | - 6.1 | 1.4 |
| 1948-49 | | 3.6 | | 3.7 | | | 30.6 | | | | 24.1 | | 1.7 | 3.3 |
| 1949-50 | | 5.1 | | 6.2 | | | 30.9 | | | | 24.0 | | 1.6 | 3.3 |
| 1950-51 | | 3.0 | | 3.7 | | | 30.5 | | | | 23.8 | | 3.1 | 6.0 |
| 1951-52 | | 7.1 | | 5.4 | | | 30.8 | | | | 23.8 | | 1.8 | 8.4 |
| 1952-53 | | 8.1 | | 9.4 | | | 31.9 | | | | 23.5 | | 5.6 | 7.4 |
| 1953-54 | | 5.5 | | 11.0 | | | 32.3 | | | | 23.7 | | 5.4 | 7.1 |
| 1954-55 | | 3.8 | | 7.0 | | | 32.4 | | | | 24.7 | | 7.7 | 5.7 |
| 1955-56 | | 5.0 | | 7.6 | | | 31.4 | | | | 23.7 | | 9.0 | 5.7 |
| 1956-57 | | 4.4 | | 9.7 | | | 31.1 | | | | 23.1 | | 6.3 | 7.0 |
| 1957-58 | | 5.8 | | 8.9 | | | 31.5 | | | | 23.5 | | 9.7 | 6.4 |
| 1958-59 | 30.5 | 4.9 | | 8.7 | | | 31.1 | | | | 23.2 | | 9.1 | 5.6 |
| 1959-60 | 30.0 | 4.3 | | 8.4 | | | 30.7 | | | | 22.7 | | 7.0 | 5.3 |
| 1960-61 | 30.1 | 3.2 | | 7.2 | | | 30.8 | | | | 22.9 | | 10.6 | 5.3 |
| 1961-62 | 29.8 | 2.1 | | 6.6 | | | 30.5 | | | | 23.3 | | 13.8 | 4.5 |
| 1962-63 | 29.8 | 2.1 | | 5.1 | | | 30.5 | | | | 22.2 | | 10.8 | 4.5 |
| 1963-64 | 29.6 | 2.5 | | 4.6 | | | 30.2 | | | | 21.2 | | 9.8 | 4.5 |
| 1964-65 | 29.4 | 2.6 | | 6.7 | | | 29.9 | | | | 20.6 | | 8.5 | 4.8 |
| 1965-66 | 29.0 | 2.6 | | 4.9 | | | 29.4 | | | | 19.3 | | 5.9 | 3.9 |
| 1966-67 | 28.3 | 2.9 | | 4.7 | | | 28.6 | | | | 18.0 | | 4.1 | 3.6 |
| 1967-68 | 27.3 | 2.6 | | 3.7 | | | 27.5 | | | | 17.1 | | 6.3 | 3.8 |
| 1968-69 | 26.0 | 1.9 | | 1.6 | | | 26.2 | | | | 16.6 | | 8.0 | 3.3 |
| 1969-70 | 25.2 | 2.0 | | 1.1 | | | 25.3 | | | | 16.4 | | 6.0 | 2.9 |
| 1970-71 | 24.7 | 0.4 | | 1.2 | | | 24.7 | | | | 16.5 | | 4.9 | 1.8 |
| 1971-72 | 24.9 | -1.2 | | 0.9 | | | 25.0 | | | | 16.7 | | 3.2 | 0.4 |
| 1972-73 | | -1.1 | | 0.0 | | | 23.8 | | | | 16.4 | | 1.5 | -0.2 |
| 1973-74 | | -2.4 | | 0.5 | | | 23.7 | | | | 17.7 | | 0.5 | -1.0 |
| 1974-75 | | -2.1 | | 0.7 | | | 23.3 | | | | 17.3 | | 0.7 | -0.7 |
| 1975-76 | | | | | | | | | | | | | | 0.0 |

Sources: Pupil-Teacher ratios from Cicely Watson, et al., The Elementary Teacher, Table 7; and Committee on the Costs of Education, Interim Report Number One, Tables 1 and 2, and Tables 10 and 19.

Enrolment increases from Stager, 1978, p. 46.

established as University Affairs in 1965). In 1950-51, of the \$56 million spent on education, just over \$43 million went to school authorities as grants, and something less than \$8 million went to post-secondary education, an approximate ratio of 5.4 to 1. In 1966-67 the ratio was about 3.2 to 1. In 1970-71 the ratio was about 1.5 to 1. In 1974-75, when \$1,331.8 million went to the school authorities and \$868.9 million to post-secondary education, the ratio was again about 1.5 to 1. The province's commitments to spend on post-secondary education are apparently well established, at a very high level. They no doubt reflect in part an effort to accommodate the large cohorts that have been moving through the secondary schools since the mid-1960's. The largest of these cohorts are only now moving into the ages to be attending post-secondary education.

In Table 1.2 it was shown that expenditures of the Ministry of Health, which in 1969-70 were less than a third of those of Education, were in 1972-73 slightly greater than expenditures for Education, and in 1974-75 only slightly less than for Education. Just as elementary and secondary education now must share the total provincial education budget with a very expensive university system, education in total must now be accommodated in the provincial budget along with another publicly financed service that is comparably expensive.

Table 1.13 presents the growth history of six provincial expenditure categories for the years 1972-77. Two of the six are Health and Education. One of the others is Treasury, of which the greater part of its expenditures is interest on provincial debt. Total provincial expenditures have grown at an average annual rate of 15.7%, Health at 22.6%, Community and Social Services at 23.4% and Education at 11.7%.

Projections of expenditure are offered for the years 1977-82 and 1982-87. Total expenditures are projected as growing at about 12%. The above-average growth categories are projected to be Transportation and Communications, Health and public debt interest (Treasury), while Education is projected to be a below-average category in its growth.

The economists who have produced these projections must, of course, make some assumptions about policy behaviour. They may well be wrong about the responses policy makers will make to the competing claims for

TABLE 1.13
PROVINCIAL GOVERNMENT EXPENDITURES, 1972 TO 1987
(Percent Average Annual Growth Rate)

| EXPENDITURE CATEGORY (in current dollars) | HISTORY ^a | PROJECTION | |
|----------------------------------------------|----------------------|-------------------|-------------------|
| | 1972-77 | 1977-82 | 1982-87 |
| Health | 22.6 | 13.1 | 14.0 |
| Education | 11.7 | 11.3 | 10.5 |
| Treasury, etc. | 14.9 | 12.4 ^b | 12.5 ^b |
| Transportation & Communications | 11.3 | 14.5 | 13.6 |
| Community & Social Services | 23.4 | 11.0 | 12.5 |
| Public Debt Interest | 11.9 | 12.8 | 13.8 |
| Other | 14.3 | 12.3 | 12.0 |
| Total Expenditures | 15.7 | 12.4 | 12.5 |
| Inflation in GNP | 10.4 | 6.3 | 6.8 |
| Inflation in 'All Government' | 12.4 | 7.4 | 8.1 |

^aHistorical growth rates should be interpreted with caution, even though every attempt has been made to ensure that the categories are consistently defined.

^bImposed at the average growth rate.

Source: Institute for Policy Analysis.

Taken from Foot, 1978, p. 22.

the services and commitments from each of these categories. But unless they are very wrong about future rates of GPP growth and corresponding revenue growth, they can be certain a markedly different growth for Education from the one projected here will be had only at the cost of painful decisions bearing upon commitments implicit under the other categories.

Dealing with the inescapable trade-offs in the growth increments of expenditure categories (and indeed within expenditure categories) is to recognize the costs of some "nice things" provided by the government in terms of other "nice things" government offers. To deal with the trade-offs between increments in the totality of government services and increments in real disposable income per persons is to recognize the complementary contribution of private and public consumption to the quality of our lives (and this, of course, is an important qualifier to the statement in the section above to the effect that RPDI/P is an effective index of our standard of living).

It was mentioned above that employment conditions facing young, relatively well educated people are probably more important to understanding the consequences of the educational expansion, and of the contraction of the education industry associated with declining enrolments, than are general employment conditions. To an important degree, those employment opportunities are a function of public finance.

Table 1.14 shows the number of persons employed by the Government of Ontario, 1959-60 to 1974-75. The rapidly rising government expenditures of the 1960's were associated with a rate of increase in the number of provincial employees comparable to the increase in the number of teachers. Provincial employees as a percent of the labour force peaked in 1970-71 at 2.00%. Growth of employment in the provincial public sector has been sharply curtailed since 1972.

The purport of this is that employment in the provincial public sector has followed a path much like that of employment in teaching. Doubtlessly, the competition for young, relatively well educated workers from these two large segments of publicly financed employment contributed something to the inflation of teachers' salaries, and of the "implicit

TABLE 1.14

EMPLOYMENT BY THE GOVERNMENT OF ONTARIO, 1959-60 TO 1974-75

| FISCAL YEAR | GOVERNMENT ¹ EMPLOYMENT | GOVERNMENT EMPLOYMENT PER REAL DOLLAR OF GROSS EXPENDITURE ² | PERCENT OF ONTARIO LABOUR FORCE EMPLOYED BY THE GOVERNMENT ³ |
|-------------|---------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 1959-60 | 32,302 | 30.8 | 1.36 |
| 1960-61 | 34,599 | 33.6 | 1.44 |
| 1961-62 | 36,468 | 32.4 | 1.51 |
| 1962-63 | 39,970 | 32.8 | 1.61 |
| 1963-64 | 41,415 | 32.6 | 1.62 |
| 1964-65 | 43,141 | 33.0 | 1.65 |
| 1965-66 | 45,867 | 28.8 | 1.69 |
| 1966-67 | 50,507 | 27.1 | 1.78 |
| 1967-68 | 55,733 | 24.1 | 1.90 |
| 1968-69 | 57,375 | 21.7 | 1.89 |
| 1969-70 | 62,280 | 24.0 | 1.99 |
| 1970-71 | 65,018 | 20.8 | 2.00 |
| 1971-72 | 64,996 | 19.1 | 1.92 |
| 1972-73 | 67,501 | 17.6 | 1.92 |
| 1973-74 | 68,634 | 16.8 | 1.87 |
| 1974-75 | 69,789 | 16.3 | 1.83 |

¹As of 31 March.

²Persons per one million 1961 dollars.

³Labour force is the annual average for the calendar year (so there is an approximate 3-month difference in the two series).

SOURCES: Ontario Civil Service Commission, Annual Reports.
Canadian Statistical Review, various issues.

Taken from Foot, 1977, p. 17.

price index" for government purchased goods and services.

In support of the claim that government competes for many of the same employees as do the schools is the observation that the public sector in Canada employs twice as many university graduates as the much larger private sector. It should be noted, though, that the public sector here includes education. The non-education component of it employs almost half the graduates in the public sector, or nearly one third of the total.⁶ Bird points out that in 1975, 27% of public employees in Canada worked for the federal sector, 45% for the provinces (including hospitals) and 29% for local governments (including school boards). More important, during the 1960's, provincial government grew by 8.2% per annum, municipal employment by 3.4% and federal employment by 1.5%.⁷ During the period of expansion then, it was the provincial government competing with the largely provincially funded education system for highly qualified new members of the labour force that afforded the fortunate situation of high status and high salary employment opportunities to well educated young people.

Earnings of government employees (teachers and others) improved relative to earnings of employees in the business sector in the 1946-75 period, most of that improvement taking place in the 1960's.⁸ As in the case of teachers, improving relative earnings is partially accounted for by the improving quality (education attainments) of government workers.

There is much more to be said about the consequences of the simultaneous growth and contraction of teaching jobs and of other public sector employment. But it is enough at this point to note that rates of employment growth in both areas are so directly a function of public expenditures that, given the difficulties associated with favouring growth in education expenditures at the expense of other expenditure categories, and vice versa, it is difficult indeed to suppose that they can to an important degree be alternately phased sources of opportunities for university trained new members of the labour force expecting well-paying, "salaried" employment.

⁶ See R.M. Bird, Trends in Public Employment and Pay, Policy Report No. 1, Institute for Policy Analysis, University of Toronto, November 1977, p.36.

⁷ Bird, pp. 11, 14.

⁸ Bird, 1977, p. 35.

It only remains to be said that the final size and character of our public school system has not been determined entirely by the size of the school age population. It is to a large extent the product of policy choices and public finance decisions. These decisions were made by elected public officials, answerable to public opinion, over the third of a century since the end of World War II.

During these years the direct role of the province in financing education has grown significantly. The provincial assumption of a greater share of that burden is generally conceded to have been motivated primarily by a desire to lower property taxes and to provide a closer approximation to equality of education opportunities across the province. Both of these objectives have been quite effectively served, though the second of them could probably have been served as effectively with much more modest intervention by the province. The reduction of property taxes is the more convincing rationale.

The relocating of the greater part of the financial responsibility for education has been coincidental with a fairly extensive reorganization of municipal governments, and an even more complete restructuring of the boards of education that are the organizational elements of our provincial school system.

The boards in the new system have minimal connections to the municipalities whose citizens they serve and upon whom they levy school assessments. The provincial grants system and its relation to a provincially administered assessment system and to provincially mandated property taxes have reduced the need or motivation to develop a close relationship of boards to municipal governments. Because the decisions as to what the boards will spend have been overwhelmingly the business of the province, the boards have taken on the financial character of administrative units of the central government. This administrative role requires very little in the way of a relationship with the municipalities, and through them with the taxpayers.

It now appears, however, that the government of the province will experience formidable pressures to reduce the portion of provincial revenues going to the school system. Declining enrolments may allow

this without reducing the resources per student or increasing the burden on local ratepayers. It will, however, require the boards to depend more on the taxpayers in the municipalities they serve.

Virtually all standard notions of equitable taxation and efficient government require accountability of taxing and spending authorities to taxpayers or their representatives. Our present organization of boards of education does not make the board as a spending authority effectively responsible, even indirectly, to the ratepayers. Municipal councils are in effect tax gatherers for the boards. A system of education finance depending on accountability to ratepayers suggests a reordering of board-municipality relationships. Whether there will in fact be such a reordering is an important public finance decision. If it is decided that there will be, designing the new order of relationships will be a first-order challenge to the science of public finance.

Chapter 2

The Population of Ontario: Components & Structure

Ontario, like most other provinces and most other countries of the developed Western World, finds itself in a paradoxical situation. Total population grows steadily and will continue to do so for years, partly through international and interprovincial migration but in large part through natural increase (excess of births over deaths). Yet within the population certain age groups have declined drastically in numbers owing to the very substantial decreases in the number of live births since 1960. Other age groups, however, have increased substantially, owing to the large number of live births which occurred during the last few years of World War II and especially during the period of the "Baby Boom" from 1946 to 1960.

Unless "smoothed out" by migration from other provinces and countries, these "waves" must inevitably work their way through all ages, up to old age and finally death. Since the migration numbers vary by age, and from year to year, we have one or more sets of waves superimposed upon another, and in certain years (where the peaks and valleys of the sets of waves coincide) the resultant composite wave exhibits very great deviations from one age group to another.

As a matter of fact, what Ontario is experiencing today is one of the weirdest age distributions in its history, even more unusual than that caused by the Great Depression, but perhaps not any stranger than that which occurred in Western Canada at the time of the homesteading of the Prairies where I was born. A strange feature of growing up in those days was the thought that old people (to me, at the time, anyone over the age of 40 to 50 was very old) lived only down East. But now, in practically all parts of Canada, the number of births is so low that the absence of toddlers and babes-in-arms has become very noticeable. For many of us, the evidence was too clear to be missed at the 1977 Halloween Trick or Treat night: The little ones were not there! Nor are their foods, clothes and toys to be found very easily these days in any large department store.

The Story of All Our People in Ontario

To illustrate the growth of total population, Table 2.1 shows for Ontario and its counties and districts the populations enumerated at the censuses for the past 45 years, from 1931 to 1976, plus an estimate (made by OISE, and checked in each local area) for 1981. Growth has been steady; it has also been extraordinarily uneven across this province (possibly more so than in any sister province except Quebec).

For the smaller census subdivisions and their populations during this period, the reader should refer to the Statistical Appendix being published (in multilith format) as a separate volume, containing all the detailed figures we have collected to date.

The first "line graphs", Charts 2.1(a) to 2.1(d) of this chapter present the general sets of figures of these distributions from 1931 to 1981 pictorially.

Since the recent period is of most interest, we show separately in Table 2.2 the growth (or lack of it) for the period 1971 to 1976, again for counties and districts, the changes in actual numbers as well as in percentages (and in the Statistical Appendix a set of sub-tables for metropolitan areas and census agglomerations, using the terms as defined in the censuses). These have been depicted in the form of a coloured map of the province as Chart 2.2 and as a set of bar graphs in Charts 2.3 and 2.4 for numbers and percentages, respectively.

Obviously, population is increasing at a surprisingly steady and relentless pace, as shown in Table 2.3, which compares by quarters the 1975, 1976 and 1977 growth rates of Ontario with those of Canada (not very different), Nova Scotia (somewhat lower), Quebec (much lower) and Alberta (much higher). The fourth quarter for Quebec, by the way, is quite low, and perhaps the figures will be adjusted upwards in a later issue of the Statistical Review.

These figures reveal what the general public knows and believes: Ontario is steadily increasing in population, with little or no signs of change. Small wonder, then, that the educators' story of declining school enrolments is greeted with disbelief and probably viewed as some sort of "con game" to gain sympathy and more money for the education

TABLE 2.1

POPULATION GROWTH IN ONTARIO, BY COUNTY AND DISTRICT, ACTUAL 1931-1976 AND PROJECTED FOR 1981

| Subdivision | ACTUAL | | | | | | | | PROJECTED |
|------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------------|-----------|-----------|
| | 1931 | 1941 | 1951 | 1956 | 1961 | 1966 | 1971 | 1976 | 1981 |
| Algoma-District | 46,444 | 52,002 | 64,496 | 82,059 | 111,408 | 113,561 | 121,937 | 122,883 | 123,325 |
| Erant-County | 53,476 | 56,695 | 72,857 | 77,992 | 83,839 | 90,945 | 96,767 | 99,099 | 103,490 |
| Bruce-County | 42,286 | 41,680 | 41,311 | 42,070 | 43,036 | 43,085 | 47,385 | 57,472 | 65,410 |
| Cochrane-District | 58,033 | 80,730 | 83,850 | 86,768 | 95,666 | 97,334 | 95,879 ^a | 96,825 | 96,770 |
| Dufferin-County | 14,892 | 14,075 | 14,566 | 15,569 | 16,095 | 17,108 | 21,200 | 28,528 | 33,170 |
| Stormont-County | 32,524 | 40,905 | 48,458 | 56,452 | 57,867 | 59,550 | 61,302 | 61,173 | 61,030 |
| Dundas-County | 16,098 | 16,210 | 15,818 | 16,978 | 17,162 | 17,106 | 17,457 | 18,507 | 19,130 |
| Glengarry-County | 18,666 | 18,732 | 17,702 | 18,693 | 19,217 | 18,181 | 18,480 | 19,270 | 19,570 |
| Durham-County | 25,782 | 25,215 | 30,115 | 35,827 | 39,916 | 44,549 | 47,494 | | |
| Durham-Regional Municipality | | | | | | | 217,430 ^a | 247,473 | 275,000 |
| Elgin-County | 43,436 | 46,150 | 55,518 | 59,114 | 62,862 | 61,912 | 66,608 | 69,092 | 71,585 |
| Essex-County | 159,038 | 173,356 | 215,894 | 245,420 | 256,774 | 280,922 | 306,397 ^a | 310,362 | 311,497 |
| Frontenac-County | 45,756 | 53,717 | 66,099 | 76,534 | 87,534 | 97,138 | 101,692 | 108,052 | 112,610 |
| Grey-County | 57,699 | 57,160 | 58,960 | 60,971 | 62,005 | 62,592 | 66,403 | 72,176 | 76,650 |
| Grenville-County | 16,327 | 15,989 | 17,045 | 20,563 | 22,864 | 23,429 | 24,316 | 26,025 | 27,330 |
| Haldimand-Norfolk Regional Municipality | 52,787 | 57,465 | 66,846 | 72,189 | 78,672 | 80,598 | 86,714 ^a | 89,252 | 94,000 |
| Haliburton-Provisional County | 5,997 | 6,695 | 7,670 | 8,012 | 8,928 | 7,768 | 9,081 ^a | 10,795 | 12,160 |
| Halton-County | 26,558 | 30,564 | 46,830 | 71,611 | 117,623 | 151,924 | 189,851 ^a | 228,497 | 267,000 |
| Hamilton-Wentworth Regional Municipality | 190,019 | 204,672 | 263,256 | 312,924 | 348,181 | 383,175 | 401,239 ^a | 409,490 | 419,000 |
| Hastings-County | 58,846 | 63,322 | 74,298 | 83,745 | 93,377 | 94,127 | 99,393 | 105,837 | 110,970 |
| Huron-County | 45,180 | 43,742 | 49,280 | 51,728 | 53,805 | 54,446 | 52,951 | 56,007 | 58,725 |
| Kenora-District | 25,919 | 33,372 | 39,212 | 47,156 | 51,474 | 53,995 | 53,230 | 57,980 | 59,580 |
| Kent-County | 63,607 | 67,220 | 80,384 | 86,843 | 90,871 | 96,406 | 101,120 ^a | 106,130 | 111,396 |
| Lambton-County | 54,674 | 56,925 | 74,960 | 89,939 | 102,131 | 108,236 | 114,314 | 120,576 | 125,235 |
| Lanark-County | 32,856 | 33,143 | 35,601 | 38,025 | 40,313 | 41,212 | 42,259 | 44,197 | 45,210 |
| Leeds-County | 35,157 | 36,042 | 38,831 | 43,077 | 46,889 | 49,129 | 50,093 | 52,579 | 54,290 |
| Lennox-Addington-County | 18,883 | 18,469 | 19,544 | 21,611 | 23,717 | 25,202 | 28,359 | 32,633 | 37,200 |
| Manitowlin-District | 10,734 | 10,841 | 11,214 | 11,060 | 11,176 | 10,544 | 10,931 | 10,893 | 10,895 |
| Middlesex-County | 118,241 | 127,166 | 162,139 | 190,897 | 221,422 | 249,403 | 282,014 | 303,745 | 336,890 |
| Muskoka-District Municipality | 20,985 | 21,835 | 24,713 | 25,134 | 26,705 | 27,691 | 31,938 | 36,691 | 39,930 |
| Niagara-Regional Municipality | 136,930 | 158,902 | 212,599 | 261,346 | 291,415 | 324,917 | 347,328 | 365,438 | 384,300 |
| Nipissing-District | 41,207 | 43,315 | 50,517 | 60,452 | 70,568 | 73,533 | 78,867 | 81,739 | 83,970 |
| Northumberland-County | 31,452 | 30,786 | 33,482 | 38,018 | 41,892 | 45,074 | 59,227 ^a | 64,441 | 74,580 |
| Ontario-County | 59,667 | 65,718 | 87,088 | 108,440 | 135,895 | 170,818 | 196,257 | | |
| Ottawa-Carleton Regional Municipality | 174,056 | 206,367 | 246,298 | 287,246 | 358,410 | 413,692 | 471,931 | 520,533 | 558,300 |
| Oxford-County | 48,454 | 51,610 | 59,440 | 65,897 | 71,169 | 76,018 | 80,407 ^a | 85,337 | 90,150 |
| Perry Sound-District | 25,900 | 30,083 | 27,371 | 28,095 | 29,632 | 28,335 | 30,244 | 32,654 | 33,700 |
| Peel-Regional Municipality | 28,156 | 31,539 | 55,673 | 83,108 | 111,575 | 172,321 | 259,874 ^a | 375,910 | 476,500 |
| Perth-County | 50,763 | 49,058 | 51,962 | 54,388 | 56,782 | 60,424 | 62,973 | 66,279 | 69,040 |
| Peterborough-County | 43,958 | 47,392 | 60,789 | 67,981 | 76,375 | 81,959 | 92,417 ^a | 99,930 | 108,007 |
| Frescott-Russel-County | 39,067 | 38,862 | 39,191 | 40,669 | 42,640 | 42,033 | 44,119 | 48,835 | 51,800 |
| Prince Edward-County | 16,693 | 16,750 | 18,559 | 21,145 | 21,108 | 21,307 | 20,640 | 22,559 | 24,100 |
| Rainy River-District | 17,359 | 19,132 | 22,132 | 25,483 | 26,531 | 25,816 | 25,750 | 24,768 | 24,000 |
| Renfrew-County | 52,227 | 54,720 | 66,717 | 78,245 | 89,635 | 89,453 | 90,875 | 89,099 | 88,250 |
| Simcoe-County | 83,667 | 87,057 | 106,482 | 127,016 | 141,271 | 149,132 | 175,965 ^a | 210,691 | 239,790 |
| Sudbury-District | 58,251 | 80,815 | 109,590 | 141,975 | 165,862 | 174,102 | 198,079 ^a | 194,992 | 191,335 |
| Thunder Bay-District | 65,118 | 85,200 | 105,367 | 122,890 | 138,518 | 143,673 | 145,390 | 150,647 | 154,270 |
| Timiskaming-District | 37,043 | 50,604 | 50,016 | 50,264 | 50,971 | 47,154 | 46,442 ^a | 43,760 | 42,395 |
| Metropolitan Toronto-Municipality | 818,348 | 909,928 | 1,117,470 | 1,358,028 | 1,618,787 | 1,881,691 | 2,089,729 ^a | 2,124,291 | 2,188,000 |
| Victoria-County | 25,844 | 25,934 | 27,127 | 28,248 | 29,750 | 30,917 | 36,641 ^a | 43,543 | 49,410 |
| Waterloo-Regional Municipality | 89,852 | 98,720 | 126,123 | 148,774 | 176,754 | 216,728 | 254,681 ^a | 289,129 | 322,100 |
| Wellington-County | 58,164 | 59,453 | 66,930 | 75,691 | 84,702 | 94,177 | 108,727 | 123,736 | 133,220 |
| York-Regional Municipality | 38,607 | 41,621 | 59,152 | 82,573 | 114,321 | 136,328 | 166,060 | 203,915 | 248,784 |
| Province of Ontario | 3,431,683 | 3,787,855 | 4,597,542 | 5,404,933 | 6,236,092 | 6,960,870 | 7,703,106 | 8,264,465 | 8,815,049 |

Note: ¹ Based on 1976 Area

^a Adjusted figures due to boundary changes

Sources: 1931-1971 Statistics Canada, 1971 Census, Population Census Subdivisions (Historical) Catalogue 92-702, Vol. 1 - Part: 1 (Bulletin 1.1-2)

1976, Statistics Canada, 1976 Census, Population: Geographic Distributions Catalogue 92-804 (Bulletin 1.5)

CHART 2.1(a)

ACTUAL AND PROJECTED POPULATION GROWTH IN ONTARIO
BY COUNTIES AND DISTRICTS: 1931-1981

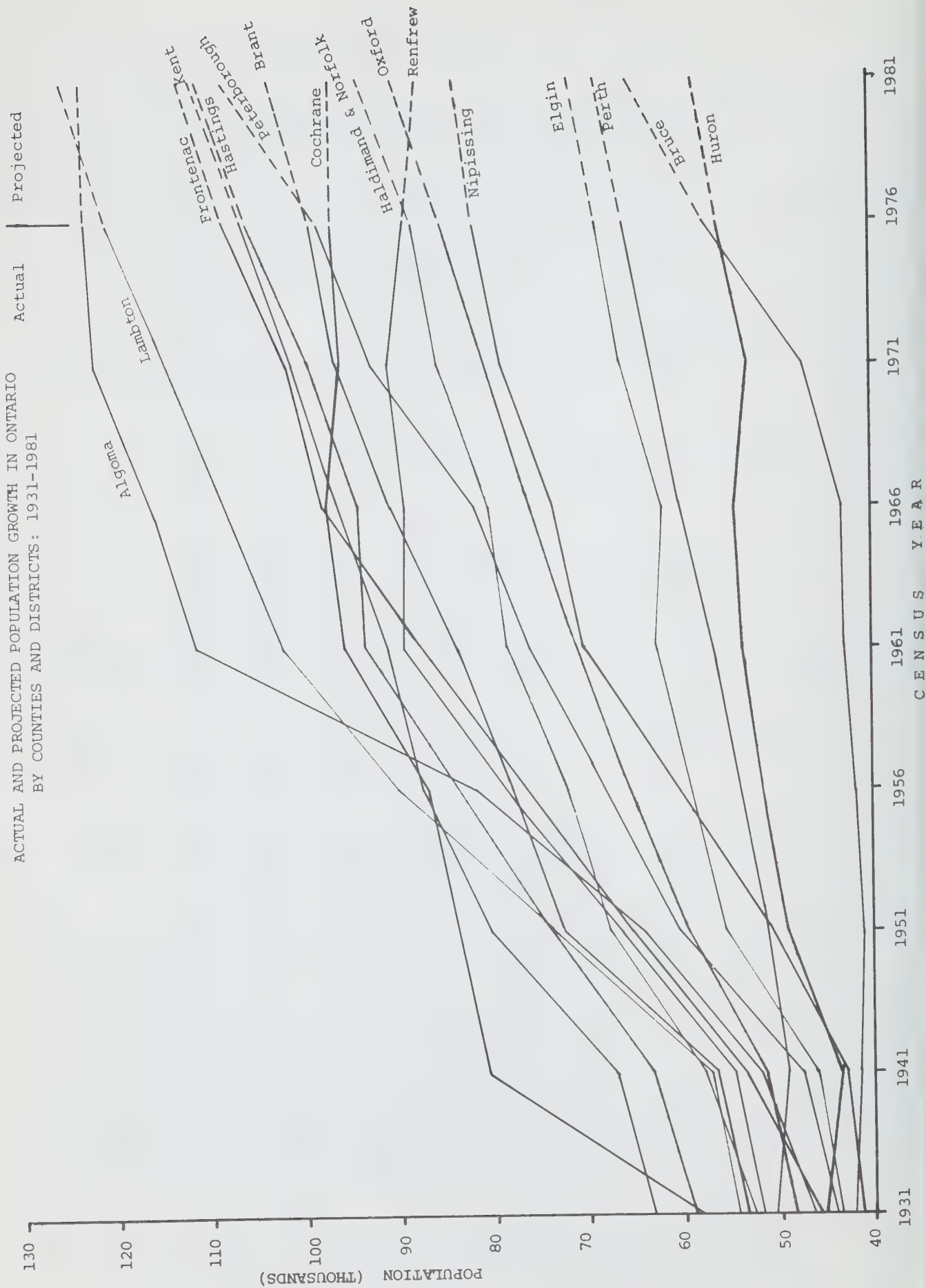


CHART 2.1 (b)

ACTUAL AND PROJECTED POPULATION GROWTH IN ONTARIO
BY COUNTIES AND DISTRICTS: 1931-1981

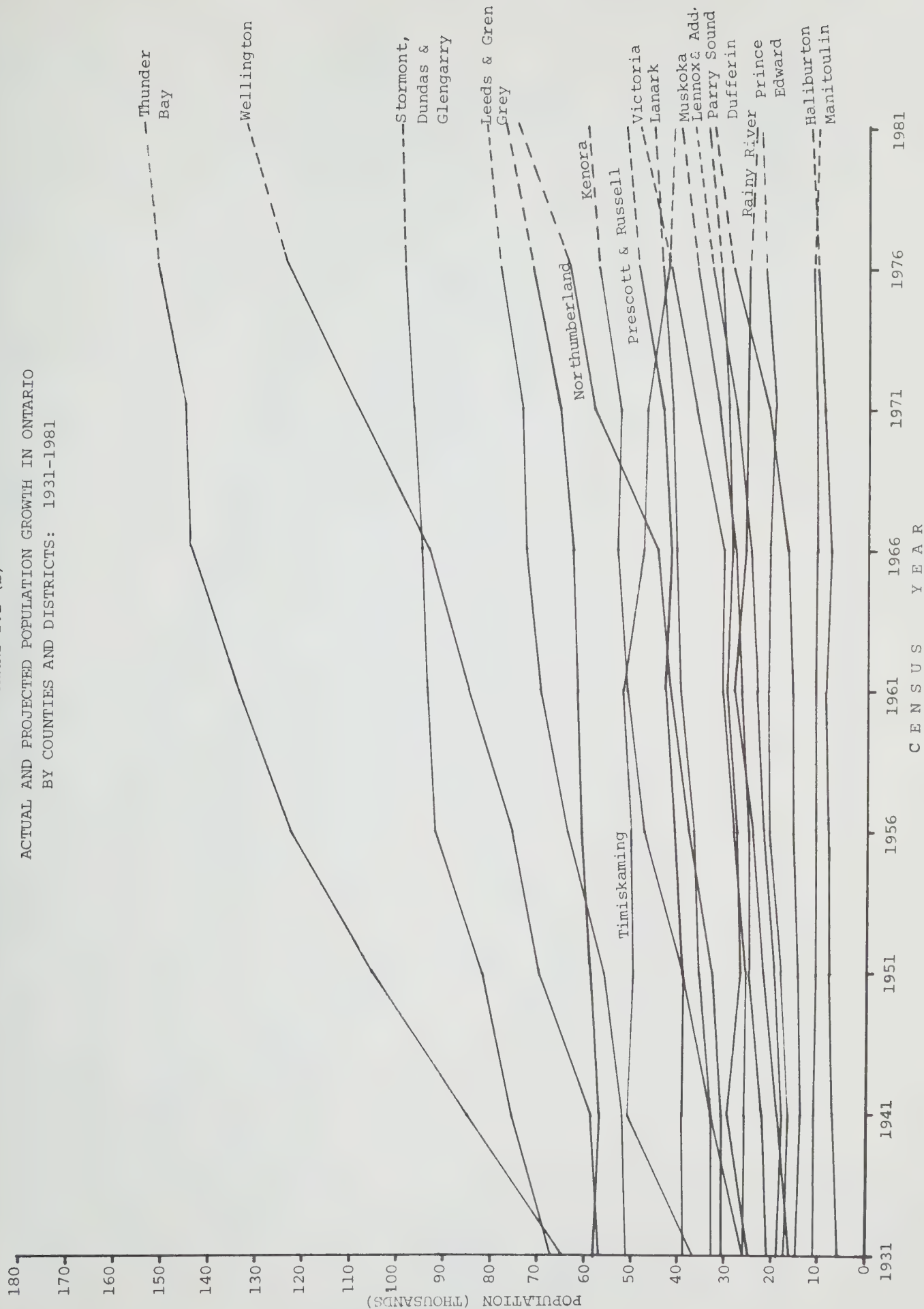
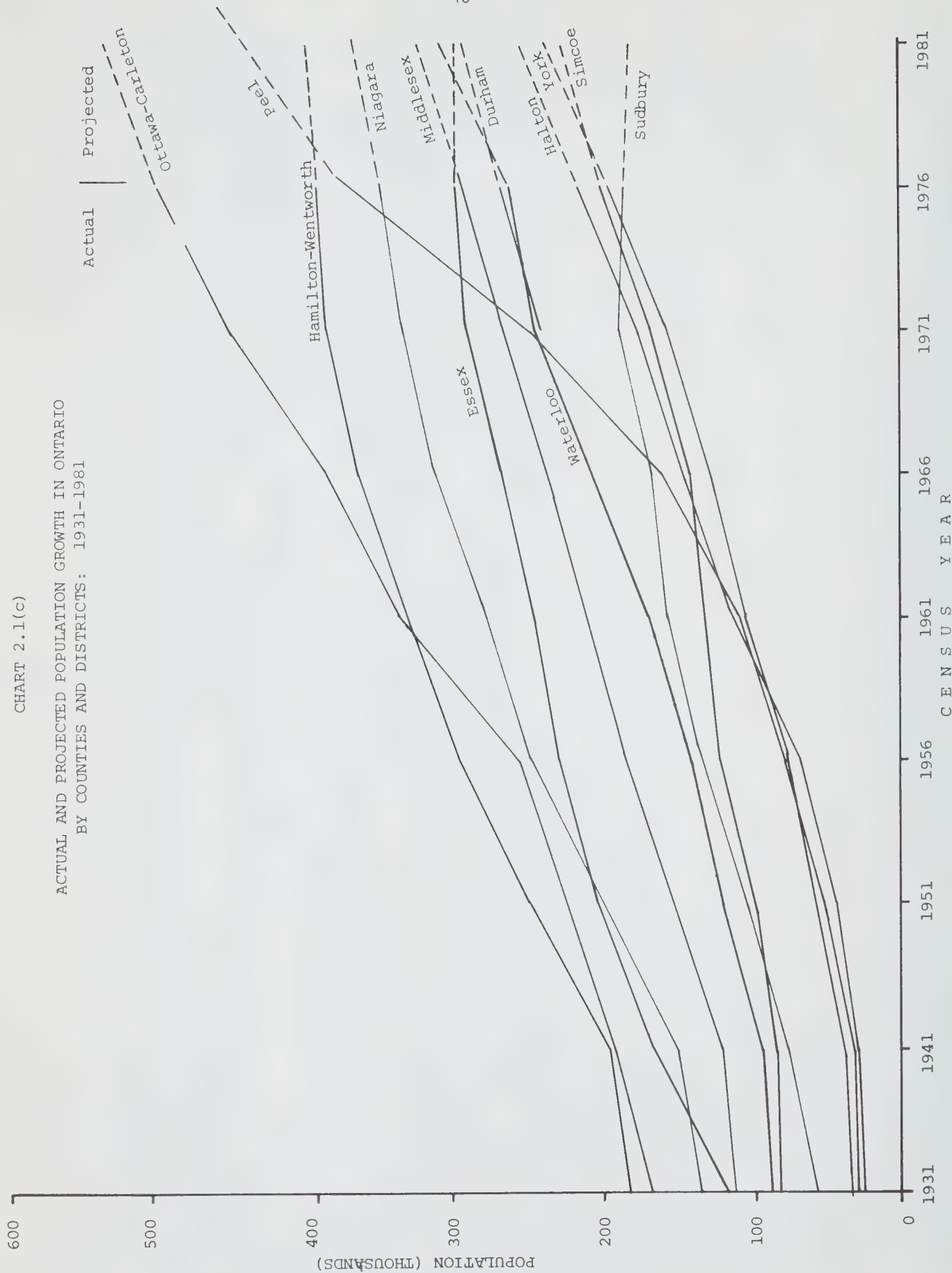
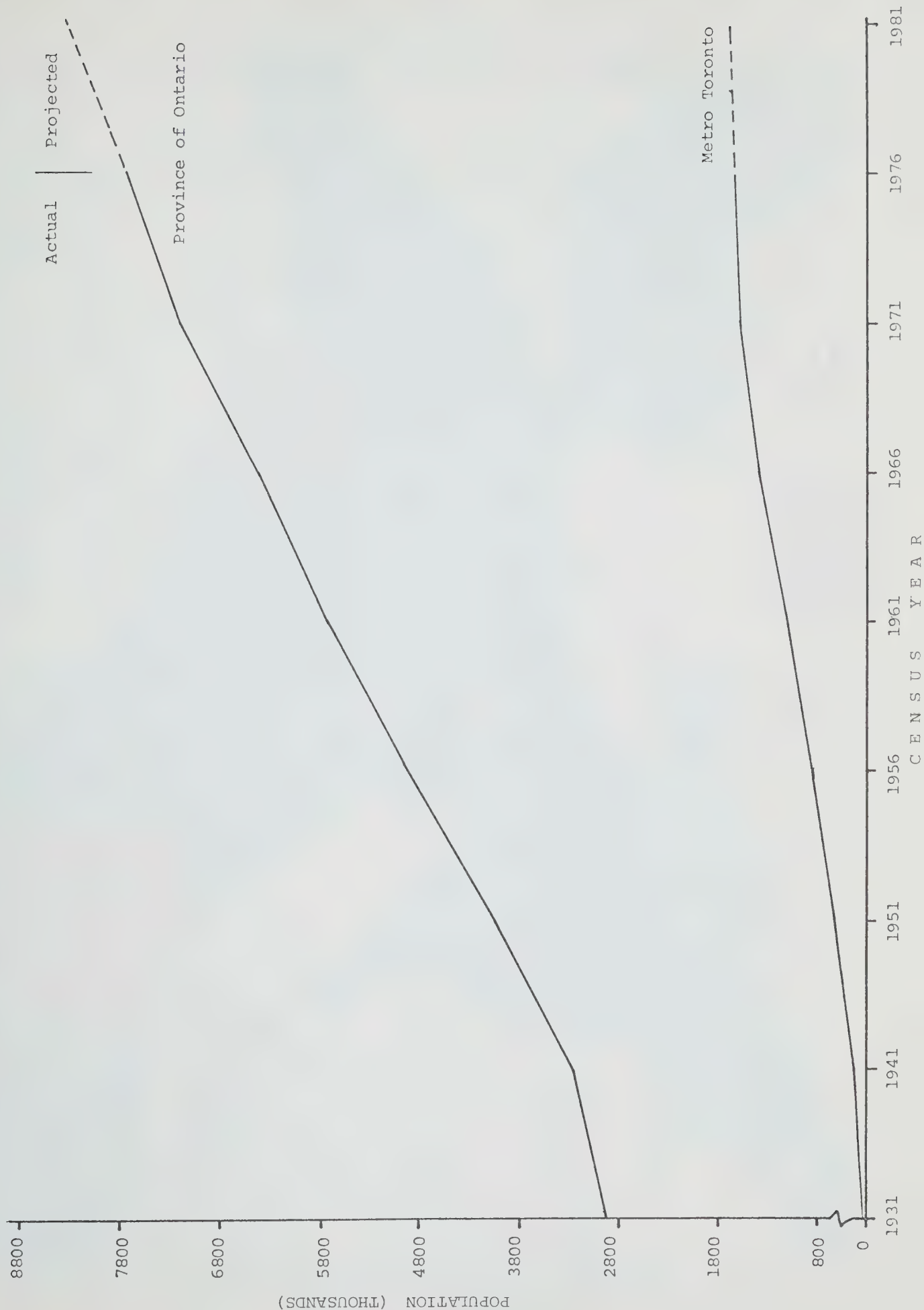


CHART 2.1(c)

ACTUAL AND PROJECTED POPULATION GROWTH IN ONTARIO
BY COUNTIES AND DISTRICTS: 1931-1981



ACTUAL AND PROJECTED POPULATION GROWTH FOR METROPOLITAN
TORONTO AND ONTARIO: 1931-1981



GROWTH OR DECLINE OF POPULATION IN ONTARIO,
BY COUNTY AND DISTRICT, 1971-76

| COUNTY/DISTRICT | 1971 | 1976 | NUMBER | PERCENT |
|----------------------|-----------|-----------|---------|---------|
| ALGOMA | 121,937 | 122,883 | 946 | 0.8 |
| BRANT | 96,767 | 99,099 | 2,332 | 2.4 |
| BRUCE | 47,385 | 57,472 | 10,087 | 21.3 |
| COCHRANE | 95,879 | 96,825 | 946 | 1.0 |
| DUFFERIN | 21,200 | 28,528 | 7,328 | 34.6 |
| DUNDAS | 17,457 | 18,507 | 1,050 | 6.01 |
| ELGIN | 66,608 | 69,092 | 2,484 | 3.7 |
| ESSEX | 306,397 | 310,362 | 3,965 | 1.3 |
| FRONTENAC | 101,692 | 108,052 | 6,360 | 6.3 |
| GLENGARRY | 18,480 | 19,270 | 790 | 4.3 |
| GRENVILLE | 24,316 | 26,025 | 1,709 | 7.0 |
| GREY | 66,403 | 72,176 | 5,773 | 8.7 |
| HALDIMAND-NORFOLK | 86,717 | 89,255 | 2,538 | 2.9 |
| HALIBURTON | 9,081 | 10,795 | 1,714 | 18.9 |
| HALTON | 189,851 | 228,497 | 38,646 | 20.4 |
| HAMILTON-WENTWORTH | 401,239 | 409,490 | 8,251 | 2.1 |
| HASTINGS | 99,393 | 105,837 | 6,444 | 6.5 |
| HURON | 52,951 | 56,007 | 3,056 | 5.8 |
| KENORA | 53,230 | 57,980 | 4,750 | 8.9 |
| KENT | 101,118 | 106,130 | 5,010 | 5.0 |
| LAMBDON | 114,314 | 120,576 | 6,262 | 5.5 |
| LANARK | 42,257 | 44,195 | 1,938 | 4.6 |
| LEEDS | 50,089 | 52,575 | 2,486 | 5.0 |
| LENNOX AND ADDINGTON | 28,361 | 32,635 | 4,274 | 15.1 |
| MANITOULIN | 10,933 | 10,895 | - 38 | - 0.4 |
| MIDDLESEX | 282,016 | 303,745 | 21,731 | 7.7 |
| MUSKOKA | 31,938 | 36,691 | 4,753 | 14.9 |
| NIAGARA | 347,328 | 365,438 | 18,110 | 5.2 |
| NIPISSING | 78,867 | 81,739 | 2,872 | 3.6 |
| OTTAWA-CARLETON | 471,931 | 520,533 | 48,602 | 10.3 |
| OXFORD | 80,410 | 85,340 | 4,930 | 6.1 |
| PARRY SOUND | 30,244 | 32,654 | 2,410 | 8.0 |
| PEEL | 259,874 | 375,910 | 116,036 | 44.6 |
| PERTH | 62,974 | 66,280 | 3,306 | 5.3 |
| PETERBOROUGH | 92,417 | 99,930 | 7,513 | 8.1 |
| PRESCOTT | 27,832 | 29,100 | 1,268 | 4.6 |
| PRINCE EDWARD | 20,640 | 22,559 | 1,919 | 9.3 |
| RAINY RIVER | 25,750 | 24,768 | -982 | - 3.8 |
| RENFREW | 90,875 | 89,099 | -1,776 | - 2.0 |
| RUSSELL | 16,287 | 19,735 | 3,448 | 21.2 |
| SIMCOE | 171,433 | 210,691 | 39,259 | 22.9 |
| STORMONT | 61,302 | 61,173 | -129 | - 0.2 |
| SUDBURY | 198,079 | 194,992 | -3,087 | - 1.6 |
| THUNDER BAY | 145,390 | 150,647 | 5,257 | 3.6 |
| TIMISKAMING | 46,442 | 43,760 | -2,682 | - 5.8 |
| METRO TORONTO | 2,089,729 | 2,124,291 | 34,562 | 1.7 |
| VICTORIA | 36,641 | 43,543 | 6,902 | 18.8 |
| WATERLOO | 254,681 | 289,129 | 34,448 | 13.5 |
| WELLINGTON | 108,727 | 123,736 | 15,009 | 13.8 |
| YORK | 166,060 | 203,915 | 37,855 | 22.8 |

POPULATION CHANGE BY COUNTIES AND DISTRICTS,
1971-1976

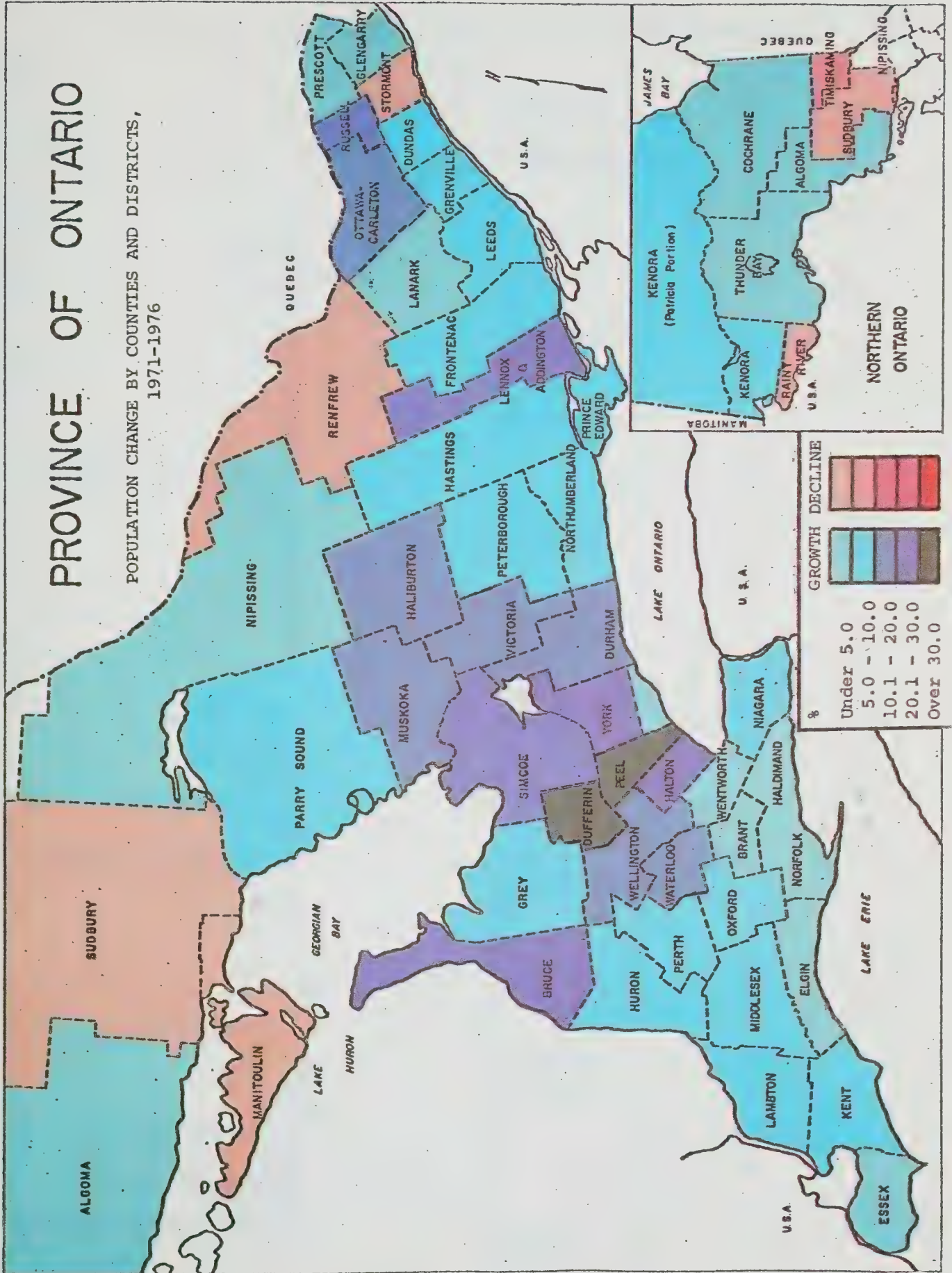


CHART 2.3

GROWTH OR DECLINE OF POPULATION IN ONTARIO, 1971 - 1976

IN THOUSANDS

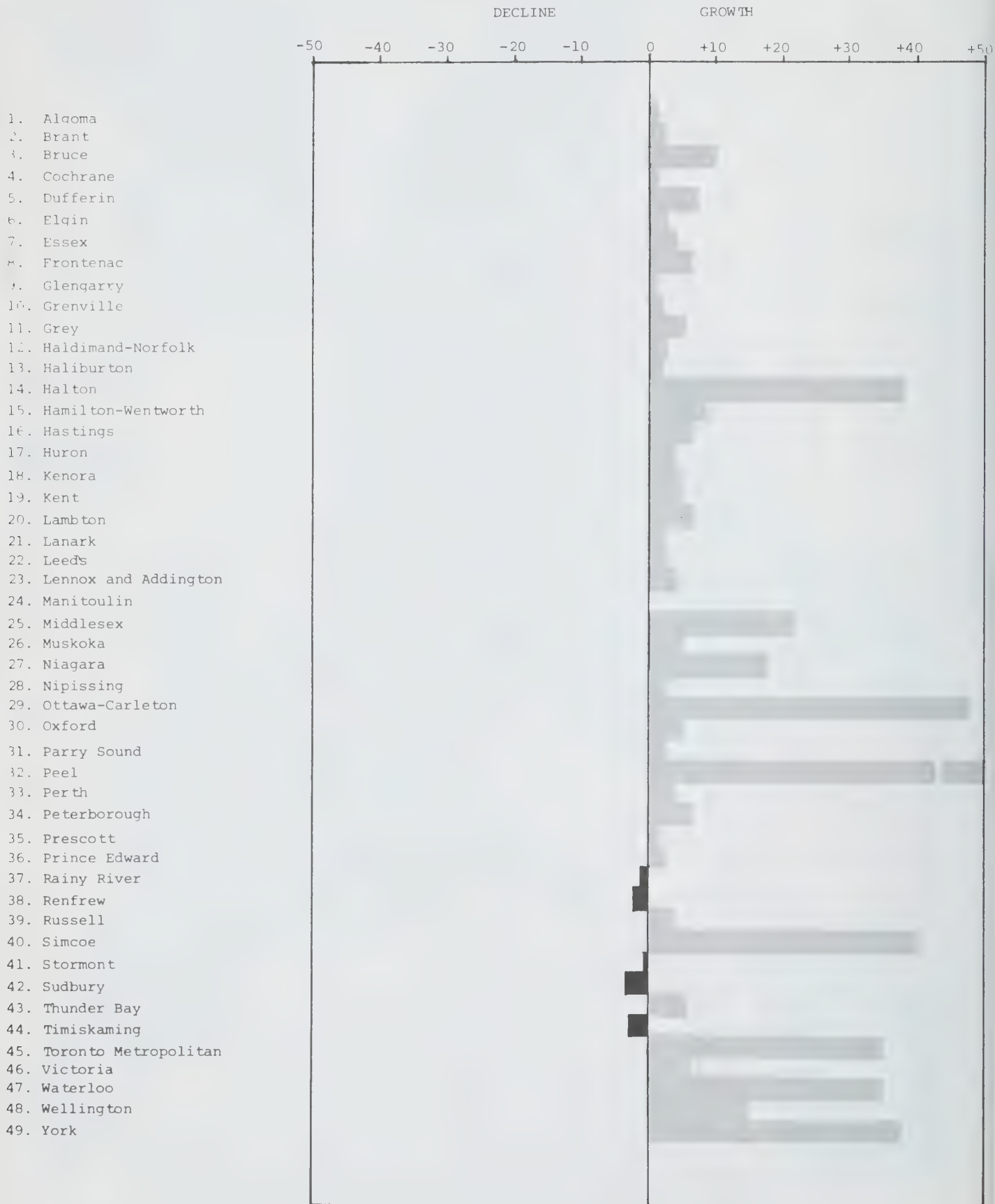


CHART 2.4
PERCENTAGE POPULATION CHANGE, 1971-76

- 45 -

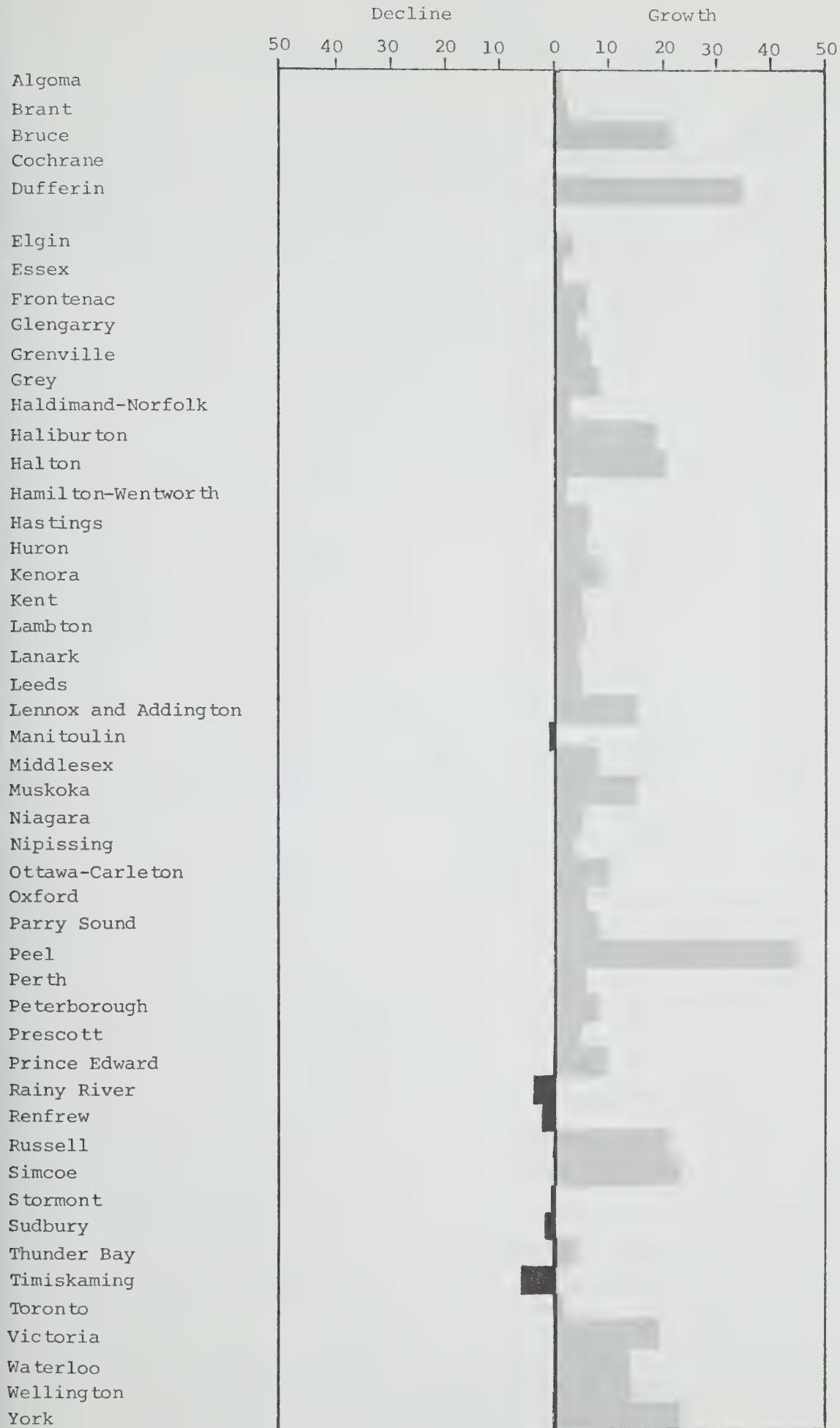


TABLE 2.3

TOTAL POPULATION OF CANADA, FOR CERTAIN PROVINCES
(QUARTERLY REPORTS FOR RECENT YEARS: STATISTICS CANADA)

A. NUMBERS

| Year | Quarter | Population Estimates | | | | |
|------|---------|----------------------|-------------|-----------|-----------|-----------|
| | | Canada | Nova Scotia | Quebec | Ontario | Alberta |
| 1974 | 4 | 22,490,500 | 814,700 | 6,144,000 | 8,099,700 | 1,741,400 |
| 1975 | 1 | 22,568,700 | 816,700 | 6,155,600 | 8,124,900 | 1,755,700 |
| | 2 | 22,639,400 | 818,500 | 6,167,200 | 8,149,800 | 1,768,900 |
| | 3 | 22,726,900 | 820,300 | 6,184,500 | 8,181,900 | 1,782,500 |
| | 4 | 22,815,700 | 824,000 | 6,198,100 | 8,211,800 | 1,799,000 |
| 1976 | 1 | 22,883,900 | 826,500 | 6,211,500 | 8,228,800 | 1,814,400 |
| | 2 | 22,946,300 | 827,700 | 6,224,600 | 8,250,000 | 1,828,100 |
| | 3 | 23,025,400 | 829,400 | 6,240,000 | 8,278,100 | 1,843,700 |
| | 4 | 23,111,300 | 832,700 | 6,255,400 | 8,306,100 | 1,862,300 |
| 1977 | 1 | 23,179,600 | 833,900 | 6,265,600 | 8,329,700 | 1,878,000 |
| | 2 | 23,242,900 | 834,500 | 6,276,100 | 8,354,700 | 1,890,200 |
| | 3 | 23,315,600 | 835,700 | 6,285,100 | 8,383,900 | 1,904,200 |
| | 4 | 23,388,100 | 838,000 | 6,283,500 | 8,417,000 | 1,923,000 |

B. GROWTH INDEXES (RATIO TO PREVIOUS QUARTER X 1,000)

| | | | | | | |
|------|---------|---------|---------|---------|---------|---------|
| 1975 | 1 | 1,003.5 | 1,002.5 | 1,001.9 | 1,003.1 | 1,008.2 |
| | 2 | 1,003.1 | 1,002.2 | 1,001.9 | 1,003.1 | 1,007.5 |
| | 3 | 1,003.9 | 1,002.2 | 1,002.8 | 1,003.9 | 1,007.7 |
| | 4 | 1,003.9 | 1,004.5 | 1,002.2 | 1,003.7 | 1,009.3 |
| | Average | 1,003.6 | 1,002.9 | 1,002.2 | 1,003.5 | 1,008.2 |
| 1976 | 1 | 1,003.0 | 1,003.0 | 1,002.2 | 1,002.1 | 1,008.6 |
| | 2 | 1,002.7 | 1,001.5 | 1,002.1 | 1,002.6 | 1,007.6 |
| | 3 | 1,003.4 | 1,002.1 | 1,002.5 | 1,003.4 | 1,008.5 |
| | 4 | 1,003.7 | 1,004.0 | 1,002.5 | 1,003.4 | 1,010.1 |
| | Average | 1,003.2 | 1,002.7 | 1,002.3 | 1,002.9 | 1,008.7 |
| 1977 | 1 | 1,003.0 | 1,001.4 | 1,001.6 | 1,002.8 | 1,008.4 |
| | 2 | 1,002.7 | 1,000.7 | 1,001.7 | 1,003.0 | 1,006.5 |
| | 3 | 1,003.1 | 1,001.4 | 1,001.4 | 1,003.5 | 1,007.4 |
| | 4 | 1,003.1 | 1,002.8 | 999.7 | 1,003.9 | 1,009.9 |
| | Average | 1,003.0 | 1,001.6 | 1,001.1 | 1,003.3 | 1,008.1 |

system. Something of the message is getting through, fortunately, since enough schools were closed and staffs reduced at the elementary school level between 1971 and 1976 to become noticeable.

Charts 2.5 and 2.6 show coloured maps of the province for public schools and Roman Catholic separate schools, respectively, representing by different colours the percentage enrolment decreases (and increases, in a few cases) between 1971 and 1976. The actual figures for each of the years (September 30th enrolment) are given in Table 2.4, for public, separate, total elementary, secondary, and total enrolment of the province for each year from 1966 to 1976. These are not estimates, but actual enrolments for the whole province from which the values depicted on the maps were extracted.

Clearly, the period from 1971 to 1976 has been a difficult one of contraction for elementary schools. The difficulties have been partially hidden by changes in pupil-teacher ratios and the virtual completion of the systems of senior kindergartens, junior kindergartens and special education programs across most of the province. Secondary schools were not yet affected, except in a few areas, and indeed continued to expand enrolment as the peak of the Baby Boom reached them. This helped hide the declines in the lower sectors of the school system. (The decline does seem to be noticeable, by the way, in the preliminary 1977 secondary school enrolment data.)

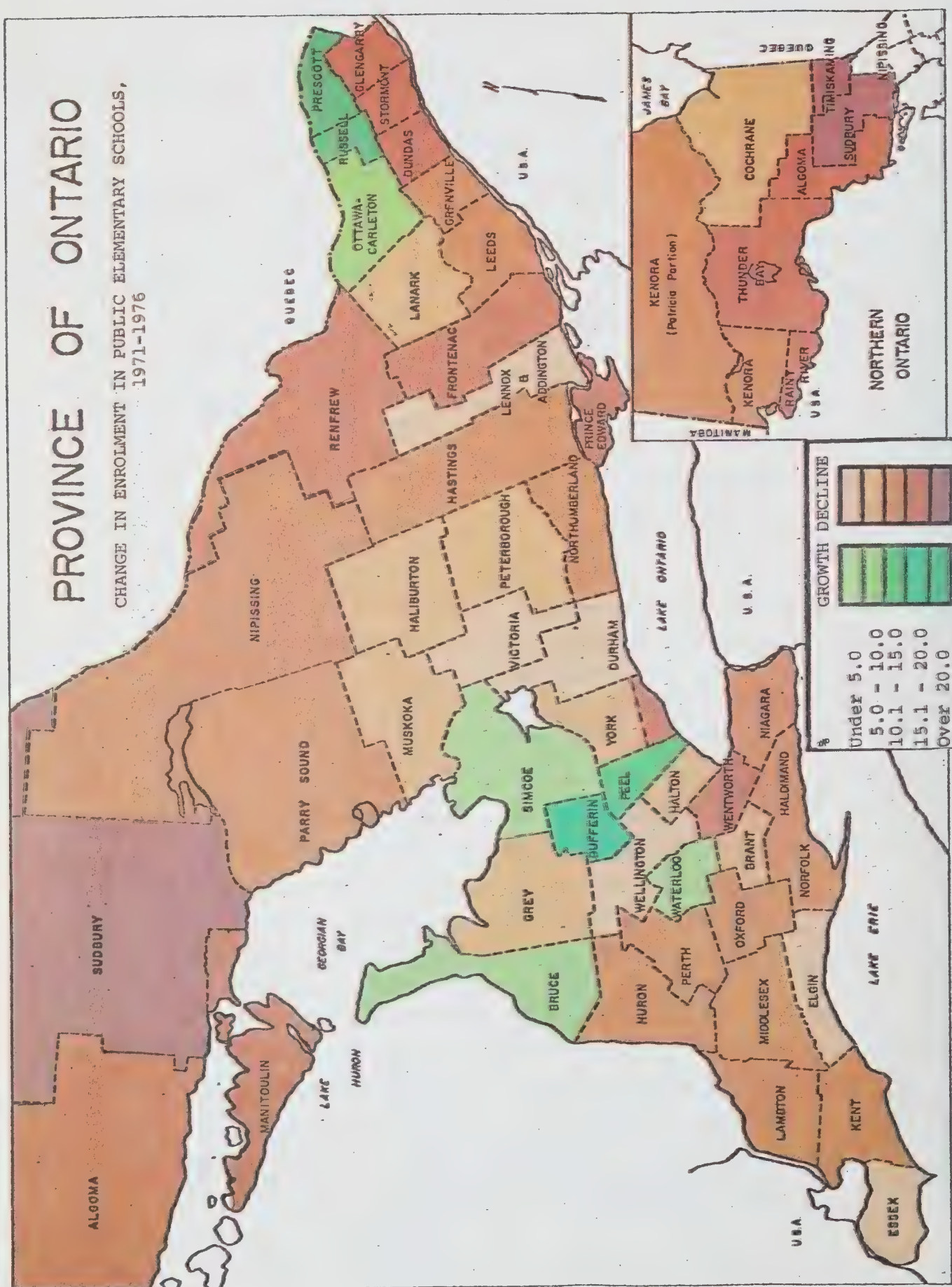
Many other strange things have been happening beneath the smooth surface of the advancing wave of total population growth in Ontario.

We have become an urbanized, or at least a non-farm people, as shown by the 1931-71 urban-rural figures in Table 2.5 and the moving shaded bars of Chart 2.7 for the same period. There has also been a flight from the cities to the suburban areas between 1971 to 1976. Most parts of Canada show the same trend, but the heavy flow of migrants into Ontario, largely to the urban centres and their rings of suburbs, has hastened the transition here (and speeded up the covering of the fertile farmlands of Southern Ontario with buildings and asphalt).

The ratios of males to females, by five-year age groups, have been changing, and the sex-ratio figures presented in Table 2.6 and shown in

PROVINCE OF ONTARIO

CHANGE IN ENROLMENT IN PUBLIC ELEMENTARY SCHOOLS, 1971-1976



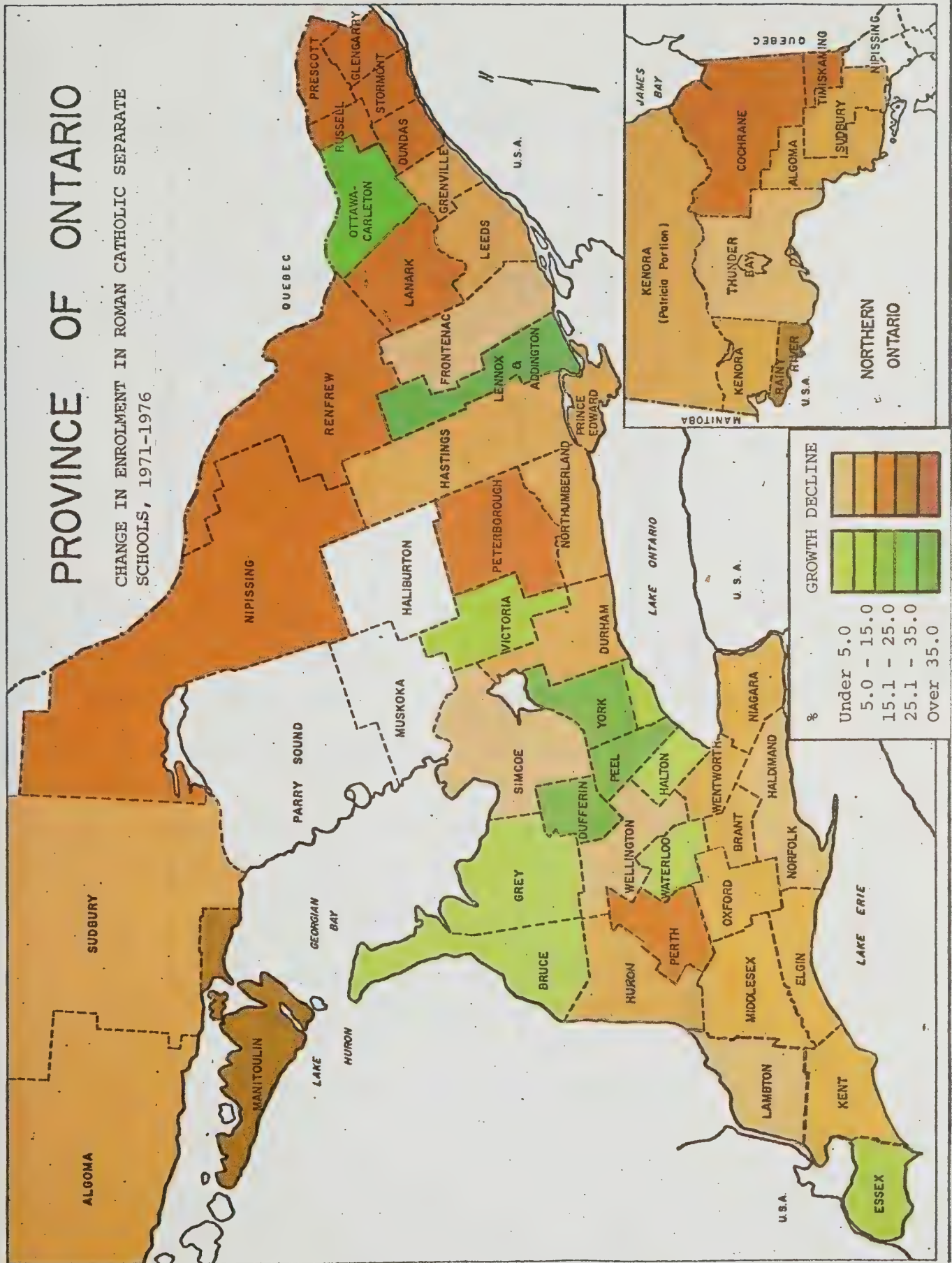


TABLE 2.4

TEN YEARS OF POPULATION AND SCHOOL

ENROLMENT GROWTH

ONTARIO: 1967 TO 1976

| Year | Total Population | Elementary and Secondary School Enrolment ² | | | |
|------|---------------------|--------------------------------------------------------|-------------------------------|-----------|----------------|
| | | Public | Elementary School Separate | Total | Grand Total |
| 1967 | 7,127,000 | 1,002,555 | 402,497 | 1,405,052 | 1,868,788 |
| 1968 | 7,262,000 | 1,021,676 | 408,914 | 1,430,590 | 1,931,397 |
| 1969 | 7,385,000 | 1,042,561 | 413,556 | 1,456,117 | 1,986,796 |
| 1970 | 7,551,000 | 1,047,055 | 418,433 | 1,465,488 | 2,022,401 |
| 1971 | 7,703,000 | 1,034,703 | 422,137 | 1,456,840 | 2,031,360 |
| 1972 | 7,834,000 | 1,022,935 | 422,166 | 1,445,101 | 2,028,114 |
| 1973 | 7,939,000 | 998,668 | 424,217 | 1,422,885 | 2,008,610 |
| 1974 | 8,094,000 | 977,545 | 427,294 | 1,404,839 | 1,994,489 |
| 1975 | 8,226,000 | 961,625 | 427,853 | 1,389,478 | 1,994,638 |
| 1976 | 8,264,000 | 937,292 | 422,793 | 1,360,085 | 1,973,140 |

Sources: Ontario Statistical Review, TEIGA

² Annual Reports of the Ontario Minister of Education

TABLE 2.5
URBAN-RURAL DISTRIBUTION IN ONTARIO,
1931 TO 1971

| Census Years | Total No. | <u>Urban</u> | | <u>Rural</u> | |
|-----------------|--------------|--------------|------|--------------|------|
| | | No. | % | No. | % |
| 1931 | 3,431,683 | 2,095,992 | 61.1 | 1,335,691 | 38.9 |
| 1941 | 3,787,655 | 2,591,494 | 68.4 | 1,196,161 | 31.6 |
| 1951 | 4,597,542 | 3,375,825 | 73.4 | 1,221,717 | 26.6 |
| 1956 | 5,404,933 | 4,102,919 | 75.9 | 1,302,014 | 24.1 |
| 1961 | 6,236,092 | 4,823,529 | 77.4 | 1,412,563 | 22.6 |
| 1966 | 6,960,870 | 5,593,440 | 80.4 | 1,367,430 | 19.6 |
| 1971 | 7,703,105 | 6,343,630 | 82.4 | 1,359,475 | 17.6 |

Source: Statistics Canada, Vol. 1, Part 1, Cat. No. 92-709

CHART 2.7

URBAN-RURAL DISTRIBUTION OF POPULATION IN ONTARIO, 1931 to 1971

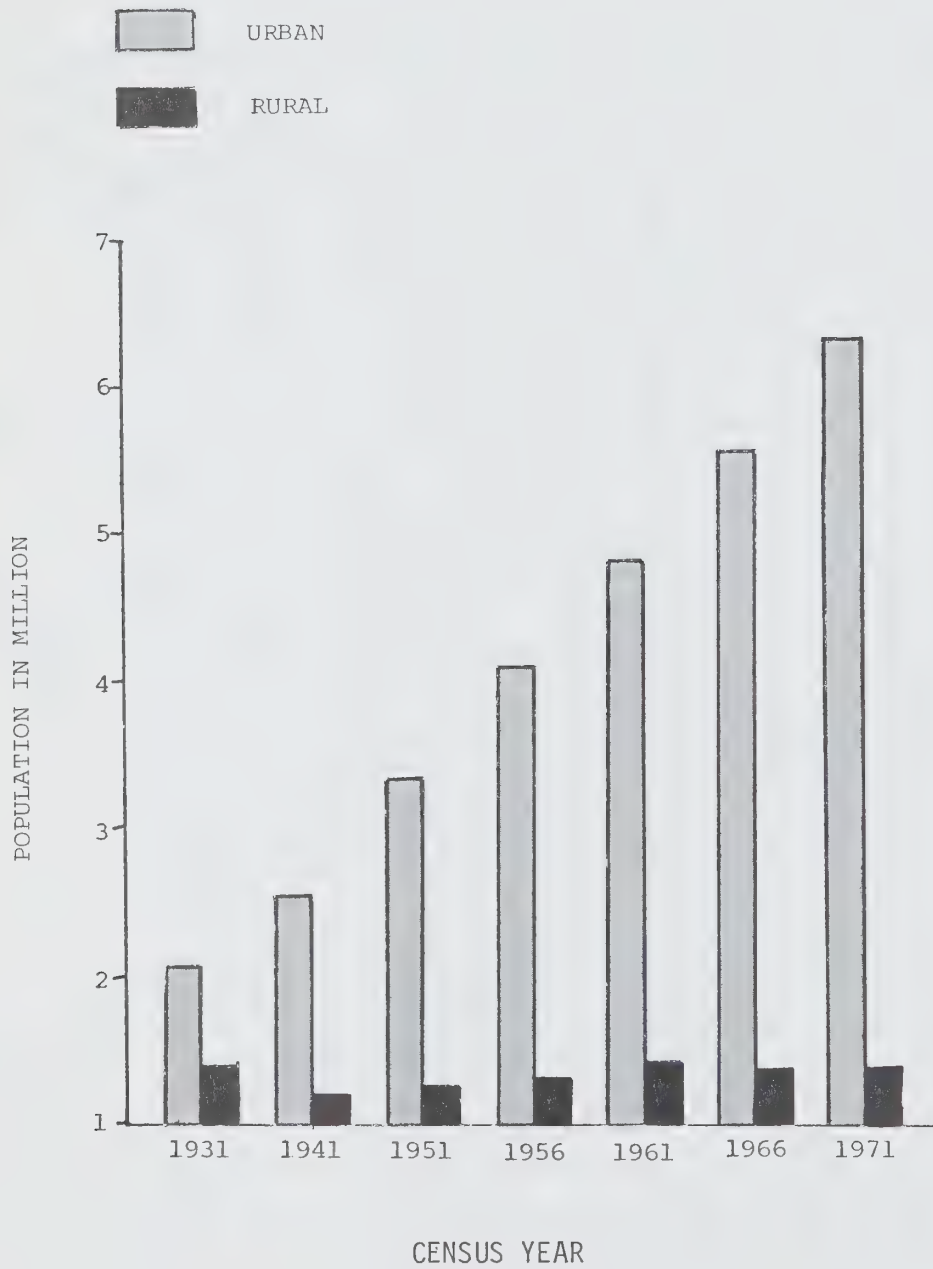
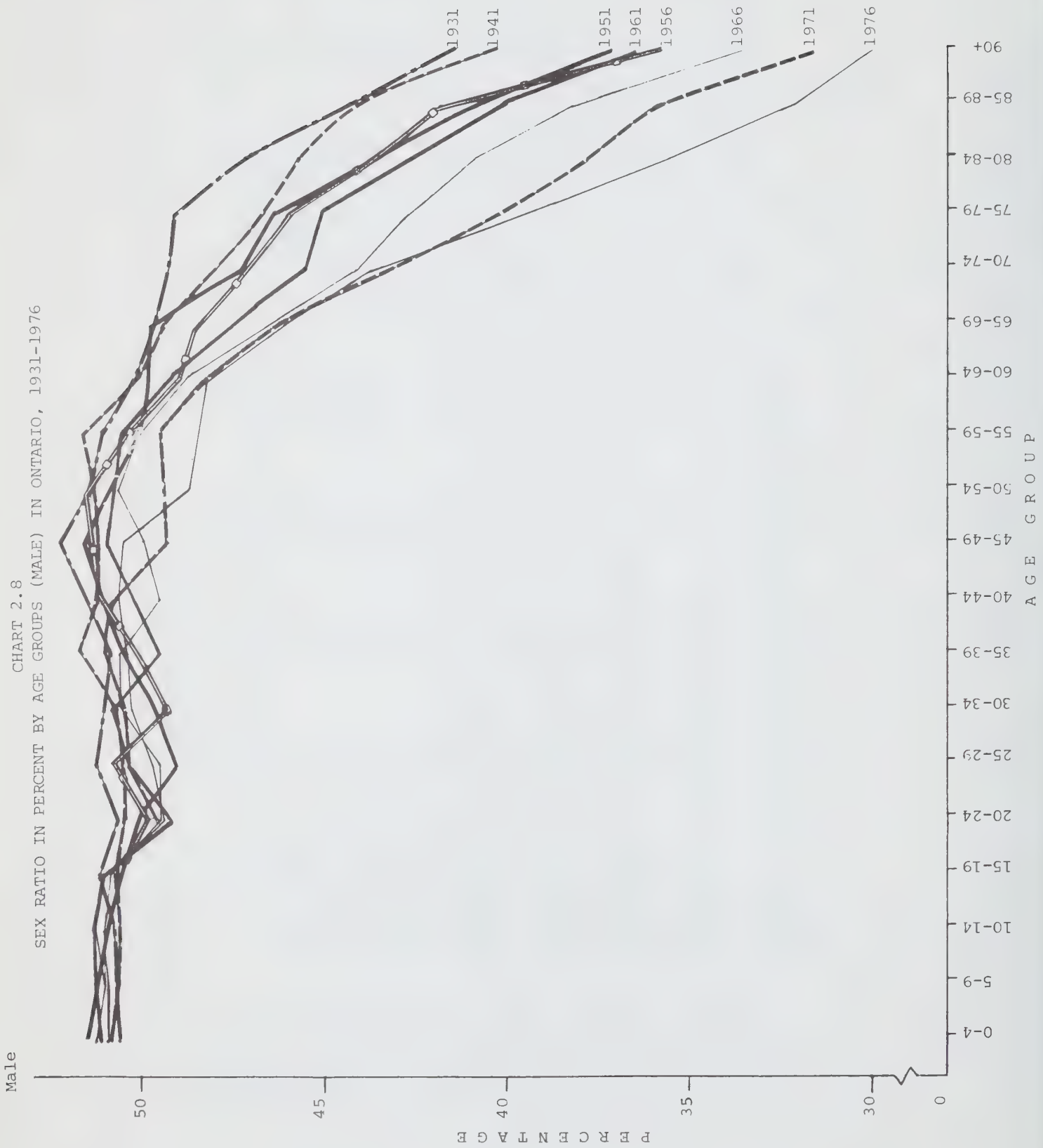


TABLE 2.6
SEX RATIO IN PERCENT BY AGE GROUPS IN ONTARIO, 1931 - 1976
MALE

| Age Group | 1931 | 1941 | 1951 | 1956 | 1961 | 1966 | 1971 | 1976 |
|-----------|------|------|------|------|------|------|------|------|
| 0 - 4 | 50.7 | 50.9 | 51.2 | 51.0 | 51.2 | 51.3 | 51.2 | 51.3 |
| 5 - 9 | 50.7 | 50.7 | 51.2 | 51.0 | 51.2 | 51.1 | 51.2 | 51.2 |
| 10 - 14 | 50.8 | 50.7 | 50.9 | 51.1 | 51.3 | 51.1 | 51.3 | 51.2 |
| 15 - 19 | 51.2 | 50.8 | 50.7 | 50.7 | 51.1 | 50.9 | 50.8 | 51.1 |
| 20 - 24 | 50.7 | 50.5 | 50.2 | 49.9 | 49.2 | 49.6 | 49.7 | 49.5 |
| 25 - 29 | 51.3 | 50.6 | 49.1 | 50.8 | 50.5 | 49.6 | 50.5 | 49.8 |
| 30 - 34 | 51.1 | 50.8 | 49.5 | 49.4 | 50.8 | 50.7 | 50.6 | 50.4 |
| 35 - 39 | 51.0 | 51.8 | 50.7 | 50.1 | 49.6 | 50.7 | 51.1 | 50.5 |
| 40 - 44 | 51.6 | 51.3 | 51.2 | 51.3 | 50.3 | 49.6 | 51.0 | 50.7 |
| 45 - 49 | 52.4 | 51.3 | 51.7 | 51.6 | 51.0 | 50.0 | 49.5 | 50.6 |
| 50 - 54 | 51.5 | 51.4 | 50.0 | 51.5 | 50.9 | 50.7 | 49.5 | 48.8 |
| 55 - 59 | 51.3 | 51.7 | 50.2 | 50.5 | 50.7 | 50.2 | 49.6 | 48.5 |
| 60 - 64 | 50.3 | 50.3 | 50.0 | 49.1 | 49.3 | 49.0 | 48.6 | 48.3 |
| 65 - 69 | 49.8 | 49.6 | 49.9 | 48.6 | 47.7 | 46.7 | 46.6 | 46.2 |
| 70 - 74 | 49.4 | 48.2 | 47.4 | 47.2 | 45.7 | 44.3 | 43.4 | 43.8 |
| 75 - 79 | 49.3 | 46.9 | 46.6 | 46.2 | 45.2 | 42.9 | 40.4 | 39.7 |
| 80 - 84 | 47.0 | 45.9 | 43.9 | 43.7 | 42.8 | 41.1 | 38.0 | 35.8 |
| 85 - 89 | 44.2 | 44.5 | 41.1 | 42.0 | 40.3 | 38.4 | 36.2 | 32.5 |
| 90 + | 41.7 | 40.6 | 37.3 | 35.9 | 36.7 | 33.7 | 31.7 | 30.2 |

Source: Statistics Canada, Vol. 1, Part 2, Cat. No. 92-714

CHART 2.8
SEX RATIO IN PERCENT BY AGE GROUPS (MALE) IN ONTARIO, 1931-1976



line graph form in Chart 2.8 paint a picture of their own as we move from 1931 to 1976. We are moving from the male-dominated frontier society to the female-dominated world of tomorrow. Females seemed always to be stronger and healthier, and they certainly long out-live males now by a very hefty margin. But this could change as the women join the men in the hurly-burly world of business and industry and of war.

Of more immediate interest and concern to educators is the series of changes taking place in the age distribution of our people. Many outside the field of education have become interested too, if one can judge from what has appeared in recent months on the radio and TV and in the popular press. There seems to be developing a real fear of the effects of an aging society, of a time when the vast majority of us are middle-aged and older, and of the threat posed by burgeoning numbers of old-age pensioners in their wheelchairs, drooling and clicking their false teeth as they demand more attention and care than the younger generation seems able and willing to provide.

Babies were too expensive and took too much time to care for; the elderly may prove to be too expensive and burdensome to support as well. Will they be a dire threat to this affluent society? Anyone for large-scale euthanasia? Were not even some of the Protestant churches coyly flirting with the concept, for the unfit and helpless at both ends of the age scale? Have we not legalized therapeutic abortions so that we now have a rate of about one abortion every ten minutes?

That age distributions have changed markedly is evident from the figures in Tables 2.7(a) to 2.7(c) showing five-year age groups for the census years from 1931 (when the "legions of the damned" were born in the Depression) to 1976 (when so few children were there to be counted).

The line graphs of Chart 2.9, depicting age distributions superimposed over those 45 years, greatly amuse me and no doubt perplex the reader beyond endurance. How could we have dared to do this unto anyone, much less ourselves? Yet we rush madly on, prolonging the course of life, lengthening life expectancy at birth to nearly 80 years now, and probably soon to 110 years when medical scientists take cancer, heart disease and like killers and "wrestle them to the ground" with, I hope, far more success than our

TABLE 2.7(a)
CENSUS POPULATION OF ONTARIO BY AGE GROUP, 1931-1976
MALE
(IN THOUSANDS)

| Age Group | 1931 | | 1941 | | 1951 | | 1956 | | 1961 | | 1966 | | 1971 | | 1976 | |
|-----------|---------|-------|---------|-------|---------|-------|---------|--------|---------|-------|---------|-------|---------|-------|---------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 0-4 | 156.1 | 8.9 | 151.5 | 7.9 | 263.5 | 11.4 | 320.7 | 11.8 | 379.2 | 12.1 | 382.5 | 11.0 | 326.2 | 8.5 | 311.7 | 7.6 |
| 5-9 | 168.8 | 9.7 | 152.9 | 8.0 | 204.6 | 8.8 | 287.4 | 10.6 | 345.3 | 11.0 | 393.4 | 11.3 | 401.2 | 10.5 | 342.0 | 8.4 |
| 10-14 | 161.6 | 9.2 | 164.6 | 8.6 | 165.7 | 7.2 | 217.8 | 8.0 | 304.0 | 9.7 | 351.9 | 10.1 | 403.7 | 10.5 | 409.3 | 10.0 |
| 15-19 | 163.4 | 9.3 | 172.1 | 9.0 | 160.2 | 6.9 | 176.0 | 6.5 | 223.1 | 7.1 | 304.7 | 8.8 | 362.2 | 9.4 | 412.7 | 10.1 |
| 20-24 | 147.7 | 8.5 | 163.6 | 8.5 | 176.9 | 7.6 | 182.4 | 6.7 | 190.4 | 6.1 | 240.7 | 6.9 | 334.9 | 8.7 | 368.3 | 9.0 |
| 25-29 | 135.9 | 7.8 | 159.9 | 8.3 | 190.3 | 8.2 | 212.0 | 7.8 | 213.6 | 6.8 | 215.4 | 6.2 | 286.7 | 7.5 | 356.4 | 8.7 |
| 30-34 | 128.8 | 7.4 | 145.6 | 7.6 | 173.7 | 7.5 | 216.9 | 8.0 | 233.8 | 7.5 | 226.6 | 6.5 | 242.0 | 6.3 | 295.6 | 7.2 |
| 35-39 | 125.8 | 7.2 | 139.1 | 7.2 | 172.7 | 7.5 | 195.8 | 7.2 | 232.8 | 7.4 | 239.6 | 6.9 | 239.3 | 6.2 | 247.3 | 6.0 |
| 40-44 | 118.0 | 6.8 | 128.3 | 6.7 | 154.9 | 6.7 | 185.1 | 6.8 | 200.0 | 6.4 | 233.0 | 6.7 | 242.0 | 6.3 | 240.8 | 5.9 |
| 45-49 | 108.1 | 6.2 | 119.4 | 6.2 | 138.5 | 6.0 | 161.1 | 5.9 | 183.9 | 5.9 | 195.5 | 5.6 | 232.6 | 6.1 | 238.9 | 5.8 |
| 50-54 | 91.6 | 5.2 | 110.0 | 5.7 | 126.2 | 5.5 | 138.8 | 5.1 | 157.8 | 5.0 | 179.0 | 5.2 | 188.8 | 4.9 | 227.1 | 5.5 |
| 55-59 | 70.3 | 4.0 | 94.0 | 4.9 | 105.5 | 4.6 | 119.4 | 4.4 | 131.0 | 4.2 | 147.1 | 4.2 | 170.4 | 4.4 | 179.0 | 4.4 |
| 60-64 | 57.8 | 3.3 | 75.3 | 3.9 | 91.3 | 3.9 | 95.4 | 3.5 | 107.8 | 3.4 | 119.6 | 3.4 | 136.1 | 3.5 | 157.5 | 3.8 |
| 65-69 | 46.2 | 2.6 | 57.7 | 3.0 | 77.4 | 3.3 | 81.4 | 3.0 | 85.9 | 2.7 | 93.1 | 2.7 | 106.1 | 2.8 | 120.5 | 2.9 |
| 70-74 | 35.4 | 2.0 | 41.4 | 2.1 | 54.9 | 2.4 | 63.4 | 2.3 | 66.9 | 2.1 | 70.4 | 2.0 | 74.4 | 1.9 | 86.4 | 2.1 |
| 75-79 | 19.7 | 1.1 | 25.9 | 1.3 | 32.8 | 1.4 | 38.4 | 1.4 | 44.2 | 1.4 | 46.6 | 1.3 | 48.9 | 1.3 | 54.4 | 1.3 |
| 80-84 | 9.3 | 0.5 | 13.6 | 0.7 | 16.7 | 0.7 | 19.4 | 0.7 | 22.9 | 0.7 | 26.0 | 0.8 | 28.3 | 0.7 | 29.7 | 0.7 |
| 85-89 | 3.4 | 0.2 | 4.9 | 0.3 | 6.5 | 0.3 | 7.9 | 0.3 | 9.1 | 0.3 | 10.7 | 0.3 | 13.0 | 0.3 | 13.5 | 0.3 |
| 90+ | 1.0 | 0.1 | 1.3 | 0.1 | 1.9 | 0.1 | 2.3 | 0.1 | 2.9 | 0.1 | 3.3 | 0.1 | 4.4 | 0.1 | 5.8 | 0.1 |
| Total | 1,748.8 | 100.0 | 1,921.2 | 100.0 | 2,314.2 | 100.0 | 2,721.5 | 100.00 | 3,134.5 | 100.0 | 3,479.1 | 100.0 | 3,840.9 | 100.0 | 4,096.9 | 100.0 |

Numbers may not add to total due to rounding.

Sources: 1931 to 1961, Dominion Bureau of Statistics, 1961 Census Cat. 92-541, Vol. I-Part 2, pp. 20-5, Male, Female and Total.
1966 and 1971 Statistics Canada, 1971 Census Cat. 92-715, Vol. I-Part 2, pp. 7-5 and 7-6, Male, Female and Total.

TABLE 2.7(b)
CENSUS POPULATION OF ONTARIO BY AGE GROUP, 1931-1976

FEMALE

(IN THOUSANDS)

| Age Group | 1931 | | 1941 | | 1951 | | 1956 | | 1961 | | 1966 | | 1971 | | 1976 | |
|-----------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 0-4 | 151.6 | 9.0 | 146.4 | 7.8 | 251.2 | 11.0 | 308.1 | 11.5 | 361.0 | 11.6 | 363.2 | 10.4 | 311.0 | 8.0 | 295.5 | 7.1 |
| 5-9 | 164.2 | 9.8 | 148.6 | 8.0 | 194.7 | 8.5 | 276.3 | 10.3 | 329.2 | 10.6 | 376.6 | 10.8 | 382.4 | 9.9 | 325.9 | 7.8 |
| 10-14 | 156.7 | 9.3 | 160.2 | 8.6 | 159.6 | 7.0 | 208.1 | 7.8 | 289.1 | 9.3 | 336.4 | 9.7 | 384.0 | 9.9 | 389.5 | 9.3 |
| 15-19 | 155.6 | 9.2 | 167.0 | 8.9 | 155.5 | 6.8 | 170.8 | 6.4 | 213.8 | 6.9 | 294.5 | 8.5 | 351.2 | 9.1 | 395.3 | 9.5 |
| 20-24 | 143.5 | 8.5 | 160.4 | 8.6 | 175.4 | 7.7 | 182.8 | 6.8 | 196.6 | 6.3 | 244.4 | 7.0 | 339.3 | 8.8 | 376.1 | 9.0 |
| 25-29 | 128.8 | 7.6 | 155.8 | 8.3 | 197.0 | 8.6 | 205.4 | 7.6 | 209.1 | 6.7 | 218.4 | 6.3 | 280.7 | 7.3 | 359.5 | 8.6 |
| 30-34 | 123.4 | 7.3 | 140.9 | 7.6 | 177.3 | 7.8 | 221.9 | 8.3 | 226.0 | 7.3 | 220.6 | 6.3 | 236.1 | 6.1 | 290.8 | 7.0 |
| 35-39 | 121.0 | 7.2 | 129.3 | 6.9 | 168.1 | 7.4 | 195.0 | 7.3 | 236.5 | 7.6 | 233.0 | 6.7 | 229.3 | 5.9 | 242.7 | 5.8 |
| 40-44 | 110.6 | 6.6 | 122.0 | 6.5 | 147.5 | 6.5 | 176.0 | 6.6 | 197.3 | 6.4 | 236.4 | 6.8 | 232.2 | 6.0 | 233.8 | 5.6 |
| 45-49 | 98.1 | 5.8 | 113.2 | 6.1 | 129.6 | 5.7 | 151.1 | 5.6 | 176.8 | 5.7 | 195.5 | 5.6 | 237.3 | 6.1 | 233.0 | 5.6 |
| 50-54 | 86.1 | 5.1 | 104.1 | 5.6 | 121.3 | 5.3 | 130.5 | 4.9 | 151.9 | 4.9 | 174.4 | 5.0 | 192.4 | 5.0 | 237.9 | 5.7 |
| 55-59 | 66.8 | 4.0 | 87.7 | 4.7 | 104.8 | 4.6 | 117.1 | 4.4 | 127.3 | 4.1 | 146.2 | 4.2 | 173.1 | 4.5 | 190.4 | 4.6 |
| 60-64 | 57.2 | 3.4 | 74.4 | 4.0 | 91.2 | 4.0 | 98.8 | 3.7 | 110.7 | 3.6 | 124.5 | 3.6 | 143.9 | 3.7 | 168.8 | 4.0 |
| 65-69 | 46.5 | 2.8 | 58.6 | 3.1 | 77.7 | 3.4 | 86.0 | 3.2 | 94.2 | 3.0 | 106.1 | 3.0 | 121.7 | 3.2 | 140.4 | 3.4 |
| 70-74 | 36.2 | 2.2 | 44.5 | 2.4 | 61.0 | 2.7 | 70.8 | 2.6 | 79.4 | 2.6 | 88.6 | 2.5 | 97.1 | 2.5 | 110.9 | 2.7 |
| 75-79 | 20.3 | 1.2 | 29.3 | 1.6 | 37.6 | 1.6 | 44.8 | 1.7 | 53.5 | 1.7 | 61.9 | 1.8 | 72.1 | 1.9 | 82.7 | 2.0 |
| 80-84 | 10.5 | 0.6 | 16.0 | 0.9 | 21.3 | 0.9 | 25.0 | 0.9 | 30.6 | 1.0 | 37.2 | 1.1 | 46.1 | 1.2 | 53.3 | 1.3 |
| 85-89 | 4.3 | 0.3 | 6.1 | 0.3 | 9.3 | 0.4 | 10.9 | 0.4 | 13.6 | 0.4 | 17.2 | 0.5 | 23.0 | 0.6 | 28.0 | 0.7 |
| 90+ | 1.4 | 0.1 | 1.9 | 0.1 | 3.2 | 0.1 | 4.2 | 0.2 | 5.0 | 0.2 | 6.5 | 0.2 | 9.5 | 0.3 | 13.3 | 0.3 |
| Total | 1,682.8 | 100.0 | 1,866.5 | 100.0 | 2,283.4 | 100.0 | 2,683.4 | 100.0 | 3,101.6 | 100.0 | 3,481.7 | 100.0 | 3,862.2 | 100.0 | 4,167.6 | 100.0 |

Numbers may not add to total due to rounding.

Sources: 1931 to 1961, Dominion Bureau of Statistics, 1961 Census Cat. 92-541, Vol. I-Part 2, pp. 20-5 and 20-6, Male, Female and Total.
1966 and 1971 Statistics Canada, 1971 Census Cat. 92-715, Vol. I-Part 2, pp. 7-5, and 7-6, Male, Female and Total.

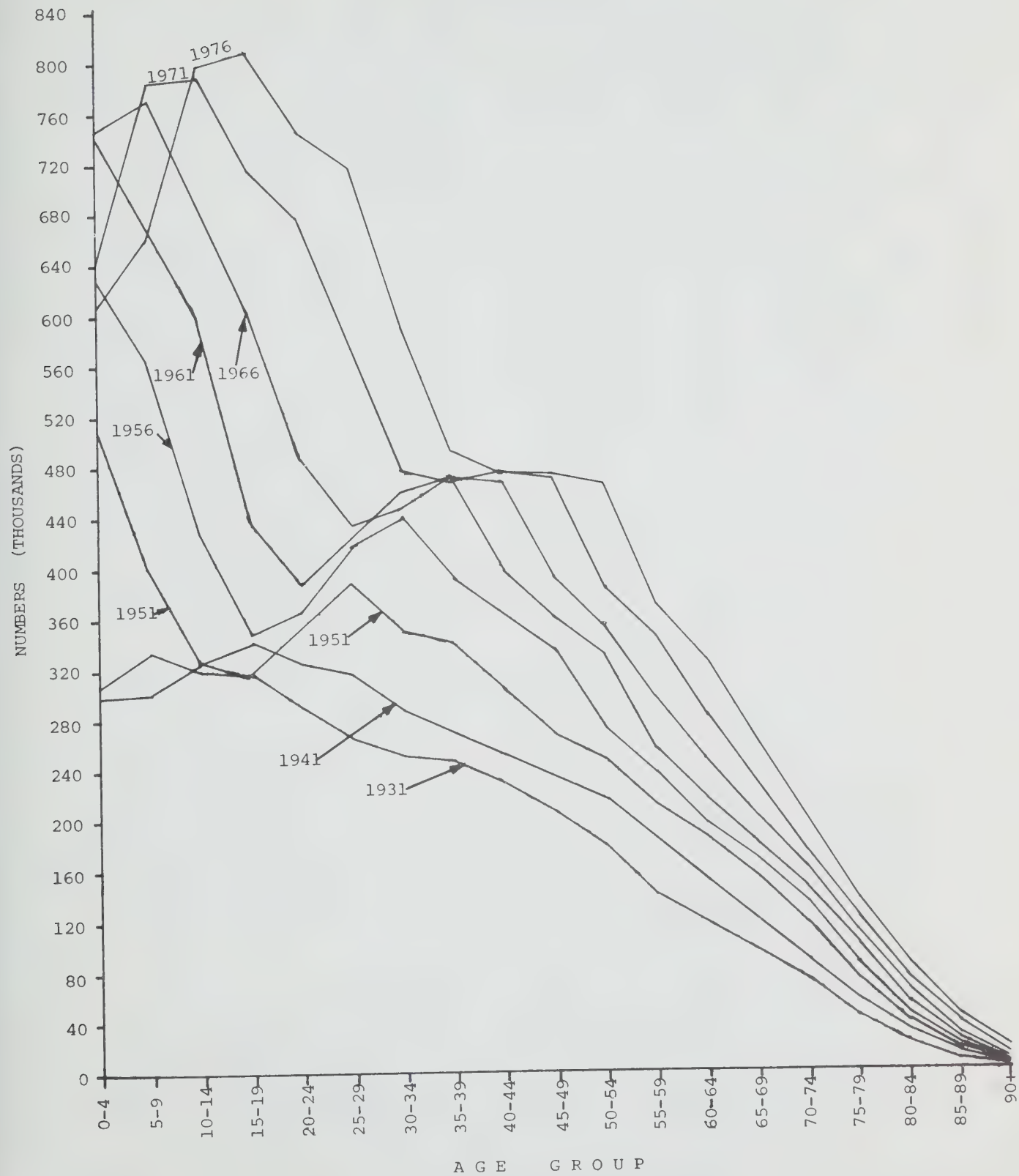
TABLE 2.7(c)
CENSUS POPULATION OF ONTARIO BY AGE GROUP, 1931-1976
MALE & FEMALE
(IN THOUSANDS)

| Age Group | 1931 | | 1941 | | 1951 | | 1956 | | 1961 | | 1966 | | 1971 | | 1976 | |
|-----------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 0-4 | 307.7 | 8.9 | 297.9 | 7.8 | 514.7 | 11.2 | 628.8 | 11.6 | 740.2 | 11.8 | 745.7 | 10.7 | 637.3 | 8.3 | 607.2 | 7.3 |
| 5-9 | 333.0 | 9.7 | 301.5 | 7.9 | 399.3 | 8.7 | 563.7 | 10.4 | 674.5 | 10.8 | 770.1 | 11.1 | 783.5 | 10.2 | 667.8 | 8.1 |
| 10-14 | 318.3 | 9.2 | 324.8 | 8.5 | 325.3 | 7.1 | 425.9 | 7.9 | 593.0 | 9.5 | 688.3 | 9.9 | 787.7 | 10.2 | 798.8 | 9.7 |
| 15-19 | 319.0 | 9.3 | 339.1 | 8.9 | 315.7 | 6.9 | 346.8 | 6.4 | 436.9 | 7.0 | 599.2 | 8.6 | 713.4 | 9.3 | 808.0 | 9.8 |
| 20-24 | 291.3 | 8.4 | 324.0 | 8.6 | 352.4 | 7.7 | 365.2 | 6.8 | 387.0 | 6.2 | 485.1 | 7.0 | 674.1 | 8.7 | 744.4 | 9.0 |
| 25-29 | 264.8 | 7.7 | 315.7 | 8.3 | 387.2 | 8.4 | 417.4 | 7.7 | 422.7 | 6.8 | 433.9 | 6.2 | 567.3 | 7.4 | 715.8 | 8.7 |
| 30-34 | 252.2 | 7.4 | 286.5 | 7.6 | 351.0 | 7.6 | 438.7 | 8.1 | 459.8 | 7.4 | 447.2 | 6.4 | 478.2 | 6.2 | 586.5 | 7.1 |
| 35-39 | 246.7 | 7.2 | 268.4 | 7.1 | 340.8 | 7.4 | 390.8 | 7.2 | 469.3 | 7.5 | 472.6 | 6.9 | 468.5 | 6.1 | 490.0 | 5.9 |
| 40-44 | 228.6 | 6.7 | 250.3 | 6.6 | 302.3 | 6.6 | 361.1 | 6.7 | 397.3 | 6.4 | 469.4 | 6.7 | 474.1 | 6.1 | 474.6 | 5.7 |
| 45-49 | 206.2 | 6.0 | 232.6 | 6.1 | 268.1 | 5.8 | 312.2 | 5.8 | 360.7 | 5.8 | 391.0 | 5.6 | 469.8 | 6.1 | 471.9 | 5.7 |
| 50-54 | 177.7 | 5.2 | 214.1 | 5.7 | 247.5 | 5.4 | 269.3 | 5.0 | 309.8 | 5.0 | 353.4 | 5.1 | 381.1 | 4.9 | 465.0 | 5.6 |
| 55-59 | 137.1 | 4.0 | 181.7 | 4.8 | 210.3 | 4.6 | 236.5 | 4.4 | 258.3 | 4.1 | 293.3 | 4.2 | 343.6 | 4.5 | 369.4 | 4.5 |
| 60-64 | 115.0 | 3.4 | 149.6 | 4.0 | 182.5 | 4.0 | 194.1 | 3.6 | 218.5 | 3.5 | 244.1 | 3.5 | 280.0 | 3.6 | 326.3 | 3.9 |
| 65-69 | 92.7 | 2.7 | 116.3 | 3.1 | 155.1 | 3.4 | 167.4 | 3.1 | 180.1 | 2.9 | 199.2 | 2.9 | 227.8 | 3.0 | 260.9 | 3.2 |
| 70-74 | 71.6 | 2.1 | 85.9 | 2.3 | 115.9 | 2.5 | 134.2 | 2.5 | 146.3 | 2.3 | 159.0 | 2.3 | 171.5 | 2.2 | 197.3 | 2.4 |
| 75-79 | 40.0 | 1.2 | 55.2 | 1.5 | 70.4 | 1.5 | 83.2 | 1.5 | 97.7 | 1.6 | 108.5 | 1.6 | 121.0 | 1.6 | 137.0 | 1.7 |
| 80-84 | 19.8 | 0.6 | 29.6 | 0.8 | 38.0 | 0.8 | 44.4 | 0.8 | 53.5 | 0.9 | 63.2 | 0.9 | 74.4 | 1.0 | 83.0 | 1.0 |
| 85-89 | 7.7 | 0.2 | 11.0 | 0.3 | 15.8 | 0.3 | 18.8 | 0.4 | 22.6 | 0.4 | 27.9 | 0.4 | 35.9 | 0.5 | 41.5 | 0.5 |
| 90+ | 2.4 | 0.1 | 3.2 | 0.1 | 5.1 | 0.1 | 6.4 | 0.1 | 7.9 | 0.1 | 9.8 | 0.1 | 13.9 | 0.2 | 19.2 | 0.2 |
| Total | 3,431.7 | 100.0 | 3,787.7 | 100.0 | 4,597.6 | 100.0 | 5,404.9 | 100.0 | 6,236.1 | 100.0 | 6,961.0 | 100.0 | 7,703.1 | 100.0 | 8,264.5 | 100.0 |

Numbers may not add to total due to rounding.

Sources: 1931 to 1961, Dominion Bureau of Statistics, 1961 Census Cat. 92-541, Vol. I-Part 2, pp. 20-5 and 20-6, Male, Female and Total.
1966 and 1971 Statistics Canada, 1971 Census Cat. 92-715, Vol. I-Part 2, pp. 7-5, and 7-6, Male, Female and Total.

1931 TO 1976



politicians demonstrate in their struggles with inflation and unemployment, and with what we call our sluggish economy.

More detailed tables have been provided in the Statistical Appendix, for the most part purloined from Statistics Canada publications, some of which are a sheer delight to read as one encounters hidden in civil service jargonese clear evidence of a wry and delightful sense of humour.

Even our language and ethnic patterns of population have changed beyond measure over these years from 1931 to 1976.

The numbers by mother tongue for our total population at each census (bear in mind that the term "mother tongue" is in meaning as changeable as a chameleon) are shown in Table 2.8. Observe the "double-shuffle", so to speak, towards a babel of many tongues during an overriding shift to English. That the disappearance of the "heritage languages" is a real danger is clear (other than for French, and even it is under threat outside Quebec, though fairly stable in Ontario, as Table 2.9 reveals). Presumably our much-vaunted multi-culturalism will "ride on into the sunset" with the languages.

Will the new "heritage language" programs in Ontario help stem these tides? French and English remain strong for the present, despite the overwhelming bombardment of a new "dialect" from south of our long, undefended (at least from sound waves and TV transmissions) border.

The ethnic origins of our countrymen keep altering, as revealed by the figures in Table 2.10 for the major ethnic groups in the census years from 1931 to 1971. The meaning of the term "ethnic group" as used in the censuses has changed. In the crude, uncouth days of my youth, one spoke bluntly (but with equal lack of clarity in definition) of "racial origin", a term now banished forever from our ken, and probably rightly so, since we were just as intolerant then as now (especially of different skin colour and of our native Indians and Innuits). But more of these themes later, when we consider migration in more detail.

The Saga of Our Youth Group in Ontario (0-25 years)

Of most concern to me, and to all other educators, are the changes appearing more recently in the younger age groups, those aged 25 and under. I have included the ages 19 to 25 years in this section to emphasize the

TABLE 2.8

POPULATION BY MOTHER TONGUE
FOR ONTARIO
1931 - 1976

| Year | English | French | German | Indian & Eskimo | Italian | Netherlands | Polish | Ukrainian | Other | Total |
|------|-----------|---------|---------|-----------------------|---------|-------------|--------|-----------|---------|-----------|
| 1931 | 2,796,821 | 236,386 | 82,089 | - | 44,715 | 4,598 | 38,388 | 30,175 | 31,528 | 3,264,700 |
| 1941 | 3,073,320 | 289,146 | 66,037 | 25,510 | 42,888 | 7,761 | 45,502 | 48,318 | 4,693 | 3,603,175 |
| 1951 | 3,755,442 | 341,502 | 72,686 | 24,811 | 52,136 | 26,913 | 58,053 | 73,710 | 192,289 | 4,597,542 |
| 1961 | 4,834,623 | 425,302 | 183,789 | 26,754 | 207,937 | 90,051 | 83,214 | 89,766 | 294,656 | 6,236,092 |
| 1971 | 5,971,570 | 482,040 | 184,880 | 28,590 | 344,285 | 77,475 | 73,985 | 80,230 | 460,050 | 7,703,110 |
| 1976 | 6,457,645 | 462,010 | 154,625 | 21,215 | 309,310 | 66,330 | 57,050 | 76,040 | 659,680 | 8,264,465 |

Source: Statistics Canada, Census of Canada, Vol. 1, Population

TABLE 2.9
1971 CENSUS: LANGUAGE BY ETHNIC GROUPS
FOR ONTARIO

| Language Category | Ethnic Origin | | | | | | | | | |
|------------------------------------|---------------|------------------|---------|---------|---------|--------------|------------------|--------|---------|---------|
| | Native Born | | | | | Foreign Born | | | | |
| | Total | British Isles(1) | French | German | Italian | Total | British Isles(1) | French | German | Italian |
| Categories | 5,995,710 | 3,946,185 | 719,190 | 337,075 | 203,525 | 1,707,400 | 629,830 | 18,165 | 138,235 | 259,575 |
| <u>Mother Tongue</u> | | | | | | | | | | |
| .English | 5,182,085 | 3,905,705 | 282,175 | 290,220 | 112,020 | 785,640 | 619,910 | 7,565 | 20,975 | 14,080 |
| .French | 466,605 | 22,210 | 434,260 | 2,205 | 1,500 | 15,740 | 1,390 | 9,110 | 405 | 925 |
| .Corresponding to Ethnic Group | 239,785 | - | - | 43,170 | 89,200 | 577,900 | - | - | 113,695 | 242,680 |
| .Other | 107,235 | 18,270 | 2,760 | 1,485 | 800 | 328,115 | 11,520 | 1,490 | 3,165 | 1,890 |
| Language Most Often Spoken at Home | | | | | | | | | | |
| .English | 5,468,860 | 3,929,055 | 394,290 | 318,060 | 133,095 | 1,089,205 | 625,755 | 11,685 | 81,140 | 49,960 |
| .French | 342,410 | 11,225 | 324,045 | 1,405 | 1,665 | 10,055 | 520 | 5,825 | 255 | 525 |
| .Corresponding to Ethnic Group | 135,090 | - | - | 17,000 | 68,235 | 384,225 | - | - | 55,040 | 207,935 |
| .Other | 49,345 | 5,910 | 910 | 615 | 525 | 223,915 | 3,555 | 655 | 1,805 | 1,150 |
| Official Language | | | | | | | | | | |
| .English Only | 5,248,795 | 3,789,350 | 232,535 | 323,540 | 175,865 | 1,475,305 | 602,315 | 6,940 | 126,805 | 178,000 |
| .French Only | 88,270 | 1,760 | 83,790 | 415 | 995 | 4,570 | 80 | 1,205 | 75 | 1,520 |
| .Both English and French | 617,625 | 154,410 | 402,830 | 10,800 | 9,410 | 98,440 | 27,055 | 9,960 | 7,925 | 13,635 |
| .Neither English nor French | 41,020 | 665 | 40 | 2,325 | 17,255 | 129,070 | 375 | 60 | 3,440 | 66,425 |

(1) Includes English, Irish, Scottish and Welsh
Source: Statistics Canada
(Catalogue 92-736; Vol. 1, Part 4)

TABLE 2.10

POPULATION BY ETHNIC GROUP, ONTARIO,
CENSUS YEARS 1951-1971

| Ethnic Group | 1931 | 1941 | 1951 | 1961 | 1971 ¹ |
|----------------------------|-----------|-----------|-----------|-----------|-------------------|
| Ontario | 3,431,683 | 3,787,655 | 4,597,542 | 6,236,092 | 7,703,105 |
| British Isles | 2,539,771 | | 3,081,867 | 3,711,536 | 4,576,010 |
| English | 1,319,612 | 1,456,968 | 1,662,966 | 1,939,867 | - |
| Irish | 647,831 | 665,339 | 723,888 | 873,647 | - |
| Scottish | 549,648 | 578,127 | 658,594 | 835,590 | - |
| Other | 22,680 | 29,396 | 36,471 | 62,432 | - |
| Other European | 837,469 | | 1,363,063 | 2,298,031 | 2,858,060 |
| French | 299,732 | 373,990 | 477,677 | 647,941 | 737,360 |
| Austrian, nos ² | 9,607 | 8,352 | 8,126 | 34,488 | 15,765 |
| Belgian | 7,310 | 8,575 | 11,592 | 22,142 | 19,955 |
| Czech and Slovak | 8,871 | 16,810 | 29,025 | 33,332 | 40,770 |
| Finnish | 27,137 | 26,827 | 29,327 | 39,096 | 38,515 |
| German | 174,006 | 167,102 | 222,028 | 400,717 | 475,320 |
| Greek | n.a. | n.a. | 7,248 | 29,062 | 67,025 |
| Hungarian | 13,786 | 22,039 | 28,182 | 59,427 | 65,695 |
| Italian | 50,536 | 60,085 | 87,622 | 273,864 | 463,095 |
| Jewish | 62,383 | 69,875 | 74,920 | 65,280 | 135,195 |
| Lithuanian | n.a. | n.a. | 8,871 | 16,200 | 15,365 |
| Netherlands | 60,241 | 73,001 | 98,373 | 191,017 | 206,940 |
| Polish | 42,384 | 54,893 | 89,825 | 149,524 | 144,115 |
| Romanian | 8,267 | 7,826 | 8,008 | 15,787 | 9,255 |
| Russian | 10,050 | 11,218 | 16,885 | 28,327 | 12,580 |
| Scandinavian | 20,760 | 27,225 | 37,430 | 63,653 | 60,225 |
| Danish } | | | 7,943 | 22,586 | 19,075 |
| Icelandic } | | | 1,371 | 2,313 | 2,680 |
| Norwegian } | n.a. | n.a. | 10,938 | 15,144 | 20,590 |
| Swedish } | | | 17,178 | 23,610 | 17,880 |
| Ukrainian | 24,426 | 48,158 | 93,596 | 127,911 | 159,880 |
| Yugoslav | n.a. | n.a. | 13,753 | 43,564 | 70,060 |
| Other | 17,973 | 24,655 | 20,576 | 55,889 | 120,945 |
| Asian | 12,297 | | 22,138 | 39,277 | 96,385 |
| Chinese | 7,139 | 6,143 | 6,997 | 15,155 | 39,325 |
| Japanese | n.a. | n.a. | 8,581 | 11,870 | 15,600 |
| Other | 5,158 | 5,877 | 6,560 | 12,252 | 41,460 |
| Other | | | 130,422 | 187,248 | 172,660 |
| Indian and Eskimo | 30,368 | 30,339 | 37,388 | 48,074 | 63,175 |
| Negro | n.a. | n.a. | 6,926 | 11,062 | 18,200 |
| Other and unknown | 11,778 | 14,835 | 86,108 | 128,112 | 91,285 |

¹Figures may not add due to rounding methodology.

²nos = not otherwise specified.

Source: Statistics Canada, Population, Ethnic Groups.

age of change from school to work, not to encroach upon the fiercely defended autonomy of the colleges and universities.

The latter institutions (meaning their staffs and students and even including their administrators) will be affected by these developing patterns of "rich years followed by lean years", as revealed in my tables and charts, but I must refrain from comment except where the impacts affect directly and indirectly the senior levels of our secondary schools and the teacher training institutions (which now, I learn with some surprise, are to be referred to only as institutions devoted to the field of teacher education).

I will not in this section drop back very often to years before 1961; it has been in 1967 and subsequent years that enrolments in our school systems have been affected by declines. I will venture forth to the projected values for the censuses of 1981 and 1986 to give added weight and point to my arguments.

I hasten to add that the projections used here for 1981 and 1986 are my own, properly classified as rough approximations perhaps, but presumably sufficiently accurate for present purposes. Besides, I had no other choice than to forge ahead on my own: the statistics from others were not forthcoming in time to meet the February 28th deadline. However, the data we have been able to secure, especially some projections from Statistics Canada and TEIGA, are being published in the Statistical Appendix, so the reader may later amend this section as he sees fit as, indeed, I shall if the new data warrant such adjustments. Moreover, what is presented here is the general picture for the province as a whole, although I am well aware of the great intraprovincial differences which do exist (in fertility rates, by the way, as well as in distribution by age).

For starters, and as a major concession which breaks the rule, I show in Table 2.11 and as line graphs in Chart 2.10 the distributions by single years of age from under 1 to 25 years for the censuses from 1941 to 1976. Admittedly the chart does appear to be a bit confusing (perhaps as a result of the confused state we were in when those children were born). The line graph for 1941 is pretty depressing, is it not? Those years were definitely not the most salubrious our country has enjoyed. (Those under

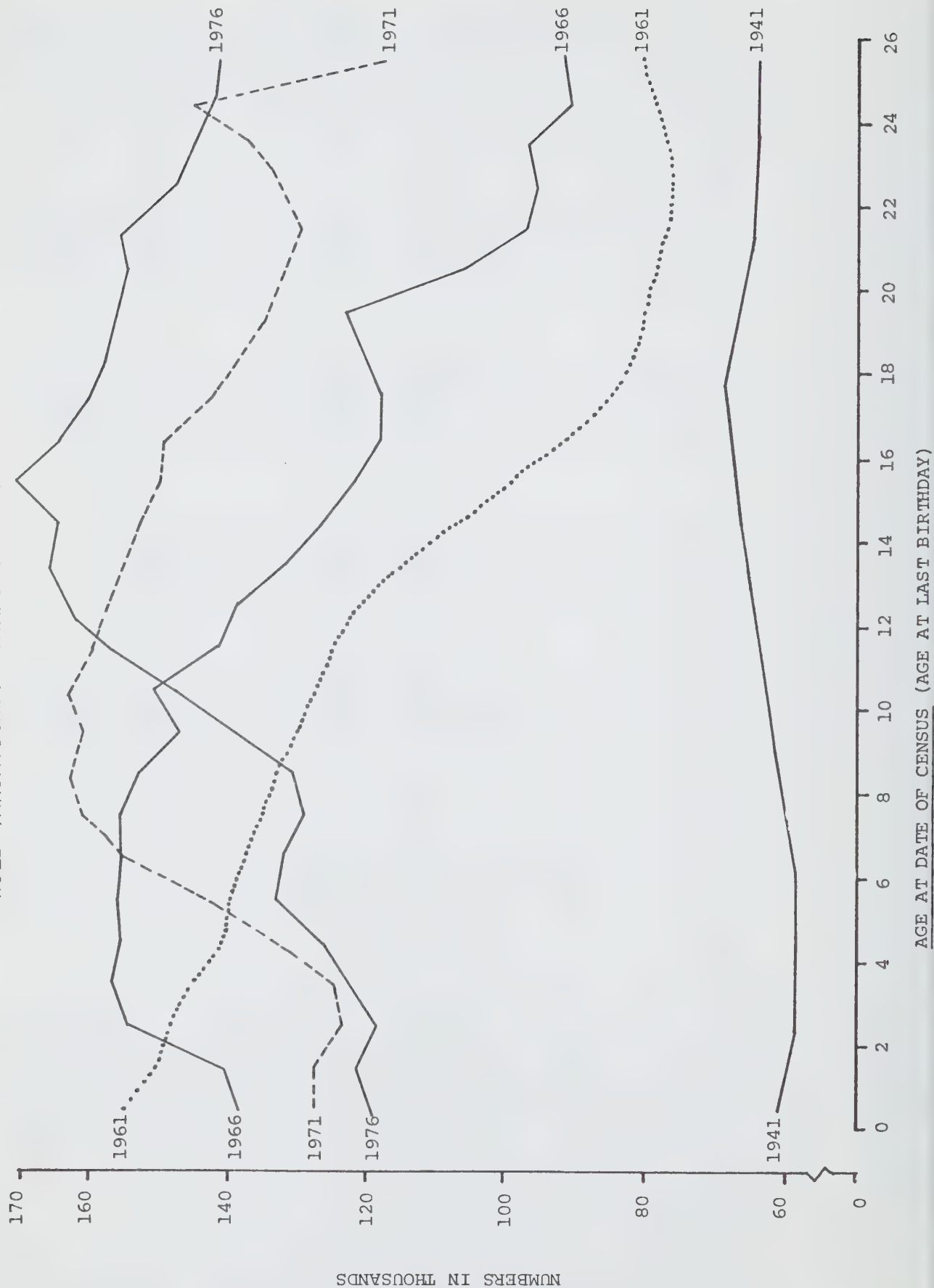
TABLE 2.11
ONTARIO: DISTRIBUTION BY SINGLE YEARS OF AGE
1931-1976

| Age | 1931 | 1941 | 1951 | 1961 | 1966 | 1971 | 1976 |
|---------|--------|--------|---------|---------|---------|---------|---------|
| Under 1 | 55,742 | 61,207 | 106,337 | 155,471 | 138,434 | 127,500 | 118,890 |
| 1 | 59,447 | 60,166 | 102,917 | 150,346 | 140,867 | 127,708 | 121,155 |
| 2 | 62,305 | 59,197 | 101,643 | 148,577 | 154,509 | 123,535 | 118,605 |
| 3 | 64,398 | 58,797 | 103,877 | 145,092 | 156,741 | 124,735 | 122,145 |
| 4 | 65,819 | 58,737 | 99,948 | 140,707 | 155,193 | 133,785 | 126,400 |
| 5 | 66,651 | 58,974 | 84,097 | 139,816 | 159,920 | 143,635 | 134,835 |
| 6 | 66,989 | 59,457 | 81,665 | 137,439 | 154,662 | 155,595 | 134,020 |
| 7 | 66,917 | 60,145 | 79,527 | 135,030 | 155,410 | 160,440 | 129,070 |
| 8 | 66,526 | 60,990 | 79,721 | 132,495 | 152,633 | 162,990 | 130,480 |
| 9 | 65,905 | 61,949 | 74,282 | 129,739 | 147,436 | 160,860 | 139,410 |
| 10 | 64,983 | 62,986 | 69,183 | 127,052 | 150,417 | 163,155 | 147,650 |
| 11 | 63,686 | 64,068 | 66,396 | 124,722 | 141,408 | 159,450 | 157,565 |
| 12 | 62,902 | 65,085 | 64,282 | 120,739 | 138,650 | 157,295 | 163,115 |
| 13 | 63,034 | 65,965 | 63,013 | 114,241 | 131,824 | 155,245 | 166,030 |
| 14 | 63,695 | 66,700 | 62,426 | 106,283 | 125,971 | 152,575 | 164,190 |
| 15 | 64,381 | 67,416 | 62,116 | 98,751 | 121,568 | 149,690 | 170,160 |
| 16 | 64,570 | 68,157 | 62,074 | 91,231 | 117,601 | 149,140 | 163,995 |
| 17 | 64,494 | 68,422 | 62,575 | 85,236 | 117,676 | 142,436 | 159,980 |
| 18 | 63,602 | 67,998 | 63,686 | 81,706 | 119,690 | 138,110 | 157,665 |
| 19 | 62,179 | 67,123 | 65,234 | 79,959 | 122,662 | 133,995 | 156,190 |
| 20 | 60,831 | 66,209 | 66,869 | 78,249 | 105,995 | 131,855 | 154,285 |
| 21 | 59,462 | 65,119 | 68,528 | 76,764 | 96,572 | 129,330 | 155,105 |
| 22 | 58,136 | 64,333 | 70,351 | 76,302 | 95,499 | 132,045 | 148,055 |
| 23 | 56,955 | 64,115 | 72,329 | 77,033 | 96,477 | 136,425 | 144,915 |
| 24 | 55,884 | 64,213 | 74,283 | 78,618 | 90,510 | 144,475 | 142,010 |
| 25 | 54,777 | 64,169 | 76,201 | 80,504 | 91,377 | 116,730 | 140,865 |

Source: Statistics Canada, Census of Canada - General Review

CHART 2.10

ONTARIO: AGE DISTRIBUTIONS (1941, 1961, 1966, 1971, 1976)
WILD VARIATIONS: SHAPING THE FUTURE



40 years of age today will, of course, know of them only by hearsay.)

As for the 1976 age distribution, which cuts across the patterns of the others (see in particular that for 1961), we go from a high of 170,160 fifteen-year-olds to a low of 118,605 two-year-olds. This is what must happen in light of the extraordinary drop in the number of live births from 1960 to 1976 (and what will happen in future years in older groups).

Of more significance to the school systems and to our future are the figures in Table 2.12, of persons of each age from under 1 to 25 years, taken from the census results of 1971 and 1976 and from my estimated population figures (approximate, remember) for 1981 and 1986.

The last column of that table, showing the decreases and increases between 1976 and 1986 by single years of age and for each five-year age group, may at first sight prove so startling that the reader will be shocked into sheer disbelief. Please note that the actual change in only five years, between 1971 and 1976, in the age group 5-9 years, was of the same magnitude.

Consequently, it seems reasonable to claim that the changes shown between 1976 and 1986, and those which may be calculated between 1976 and 1981, and between 1981 and 1986, will be fairly close, assuming that the trends in migration rates and fertility rates do not suddenly change drastically in the next eight or nine years. In any case, only the figures below age 5 in 1981, and below age 10 in 1986, are subject to the added hazard of estimated births.

To present pictorially the impact of the losses in live births as these creep like a glacier across the ages, five special graphs have been prepared (see Charts 2.11 to 2.15). The first shows the changes, called the "creeping tide of losses" between 1961 and 1966 when the effects first became noticeable. Then graph by graph we move across the years and ages (and the grades) by steps of five years at a time from 1966 to 1971, from 1971 to 1976, from 1976 to 1981, and finally (nibbling at the edges of the young labour force entries) from 1981 to 1986.

The post-secondary institutions may have something more than a mere academic interest in the shifts from 1981 to 1986, and those implied from 1986 to 1991, but as indicated earlier any comments of mine on the phenomena would be deemed obiter dicta, and classified (indignantly) as ultra vires my

ONTARIO: ACTUAL AND ESTIMATED AGE DISTRIBUTIONS

CENSUS YEARS 1971, 1976, 1981, AND 1986

(ASSUMES FERTILITY DECLINES TO 1.5-CHILD FAMILY BY 1983, AND THEN REMAINS CONSTANT)

| AGE LAST BIRTHDAY | NUMBER OF PERSONS OF EACH AGE | | | | CHANGE |
|-------------------------|-------------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------------|
| | 1971 CENSUS ¹ | 1976 CENSUS ¹ | 1981 CENSUS ¹ | 1986 CENSUS ¹ | (1986-1976) DECADE ¹ |
| Under Age 1 | 127,500 | 118,890 | 117,400 | 119,600 | 710 |
| 1 | 127,705 | 121,155 | 117,700 | 121,300 | 145 |
| 2 | 123,535 | 118,605 | 116,500 | 120,300 | 1,695 |
| 3 | 124,735 | 122,145 | 120,400 | 124,200 | 2,055 |
| 4 | 133,785 | 126,400 | 123,500 | 126,200 | -200 |
| SUBTOTAL | 637,260 | 607,195 | 595,500 | 611,600 | 4,405 |
| 5 | 143,635 | 134,835 | 129,000 | 127,400 | -7,435 |
| 6 | 155,595 | 134,020 | 125,100 | 121,400 | -12,620 |
| 7 | 160,440 | 129,070 | 123,000 | 120,800 | -8,270 |
| 8 | 162,990 | 130,480 | 127,900 | 126,000 | -4,480 |
| 9 | 160,860 | 139,410 | 136,700 | 133,600 | -5,810 |
| SUBTOTAL | 783,520 | 667,815 | 641,700 | 629,200 | -38,615 |
| 10 | 163,155 | 147,650 | 145,900 | 139,600 | -8,050 |
| 11 | 159,450 | 157,565 | 149,900 | 139,900 | -17,665 |
| 12 | 157,295 | 163,115 | 139,300 | 132,700 | -30,415 |
| 13 | 155,245 | 166,030 | 135,200 | 132,600 | -33,430 |
| 14 | 152,575 | 164,190 | 134,100 | 131,600 | -32,590 |
| SUBTOTAL | 787,720 | 798,550 | 704,400 | 676,400 | -122,150 |
| 15 | 149,690 | 170,160 | 142,400 | 140,700 | -29,460 |
| 16 | 149,140 | 163,995 | 145,900 | 138,800 | -25,195 |
| 17 | 142,435 | 159,980 | 155,500 | 132,700 | -27,280 |
| 18 | 138,110 | 157,665 | 160,200 | 130,400 | -27,265 |
| 19 | 133,995 | 156,190 | 161,500 | 132,000 | -24,190 |
| SUBTOTAL | 713,370 | 807,990 | 765,500 | 674,600 | -133,390 |
| 20 | 131,855 | 154,285 | 169,500 | 141,800 | -12,485 |
| 21 | 129,330 | 155,105 | 176,900 | 157,300 | 2,195 |
| 22 | 132,045 | 148,055 | 170,800 | 166,000 | 17,945 |
| 23 | 136,425 | 144,915 | 170,500 | 173,200 | 28,285 |
| 24 | 144,475 | 142,010 | 173,000 | 178,800 | 36,790 |
| SUBTOTAL | 674,130 | 744,370 | 860,700 | 817,100 | 72,730 |
| 25 | 116,730 | 140,865 | 176,100 | 193,500 | 52,635 |
| TOTAL 0-25 YEARS | 3,712,730 | 3,766,785 | 3,743,900 | 3,602,400 | -164,385 |

¹Actual

²Estimated on basis of 1976 mortality and migration rates

CHART 2.11

ONTARIO: THE CREEPING TIDES OF LOSSES (BLACK) GAINS (GRAY)
(BASED ON CENSUS RETURNS)

#1: 1961 TO 1966

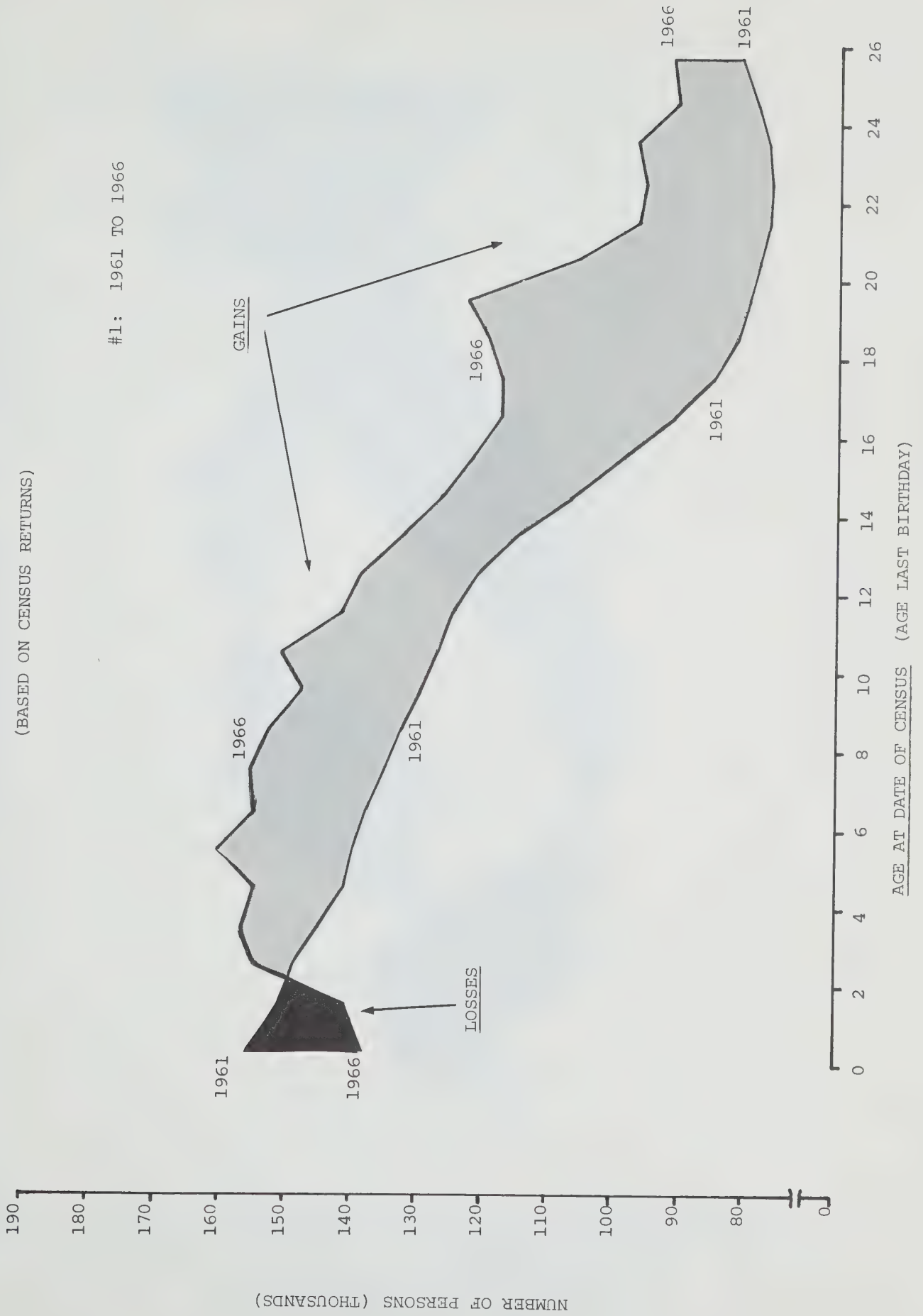
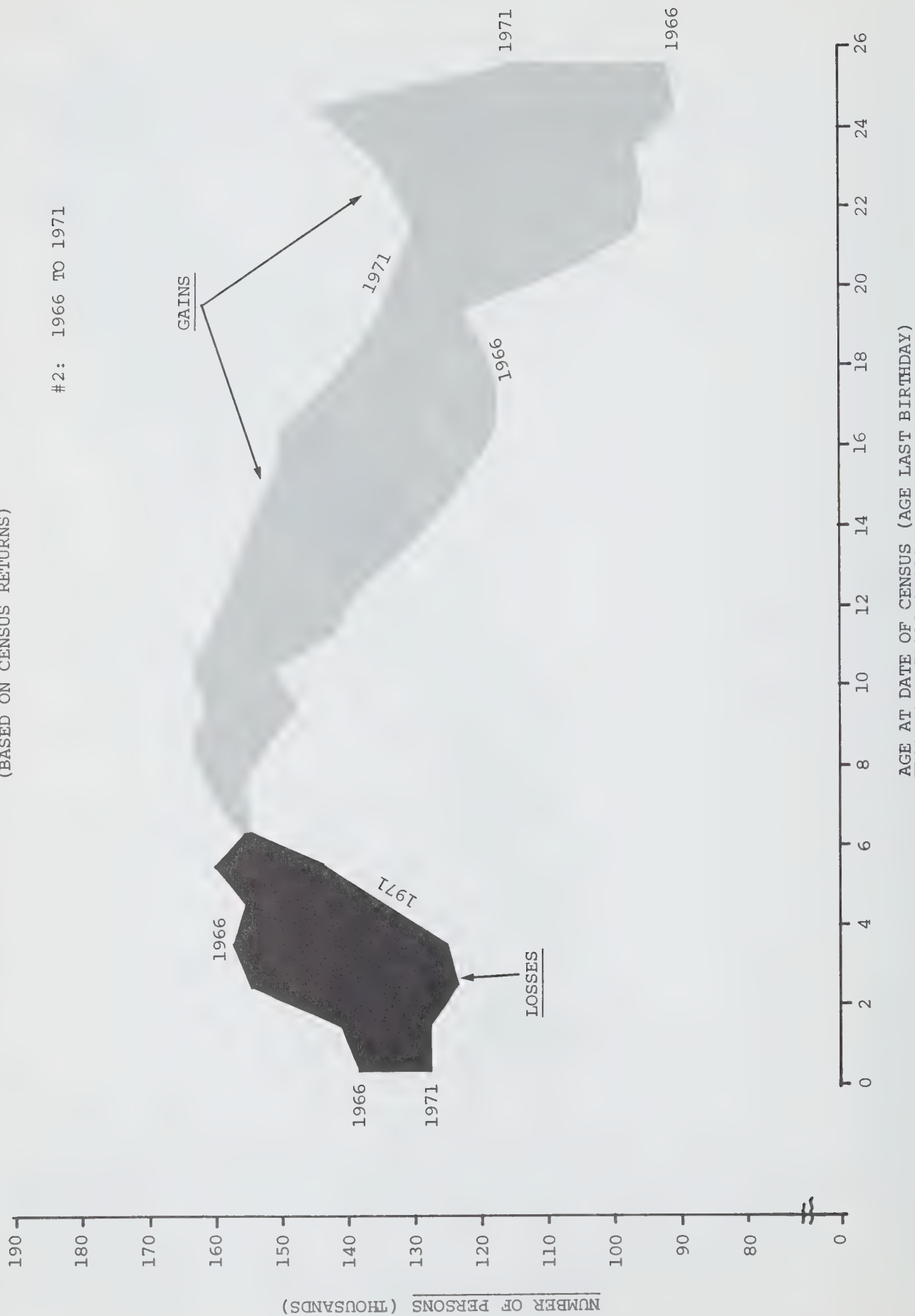


CHART 2.12

ONTARIO: THE CREEPING TIDES OF LOSSES (BLACK) GAINS (GRAY)

(BASED ON CENSUS RETURNS)



ONTARIO: THE CREEPING TIDES OF LOSSES (BLACK) GAINS (GRAY)

(BASED ON CENSUS RETURNS)

#3: 1971 TO 1976

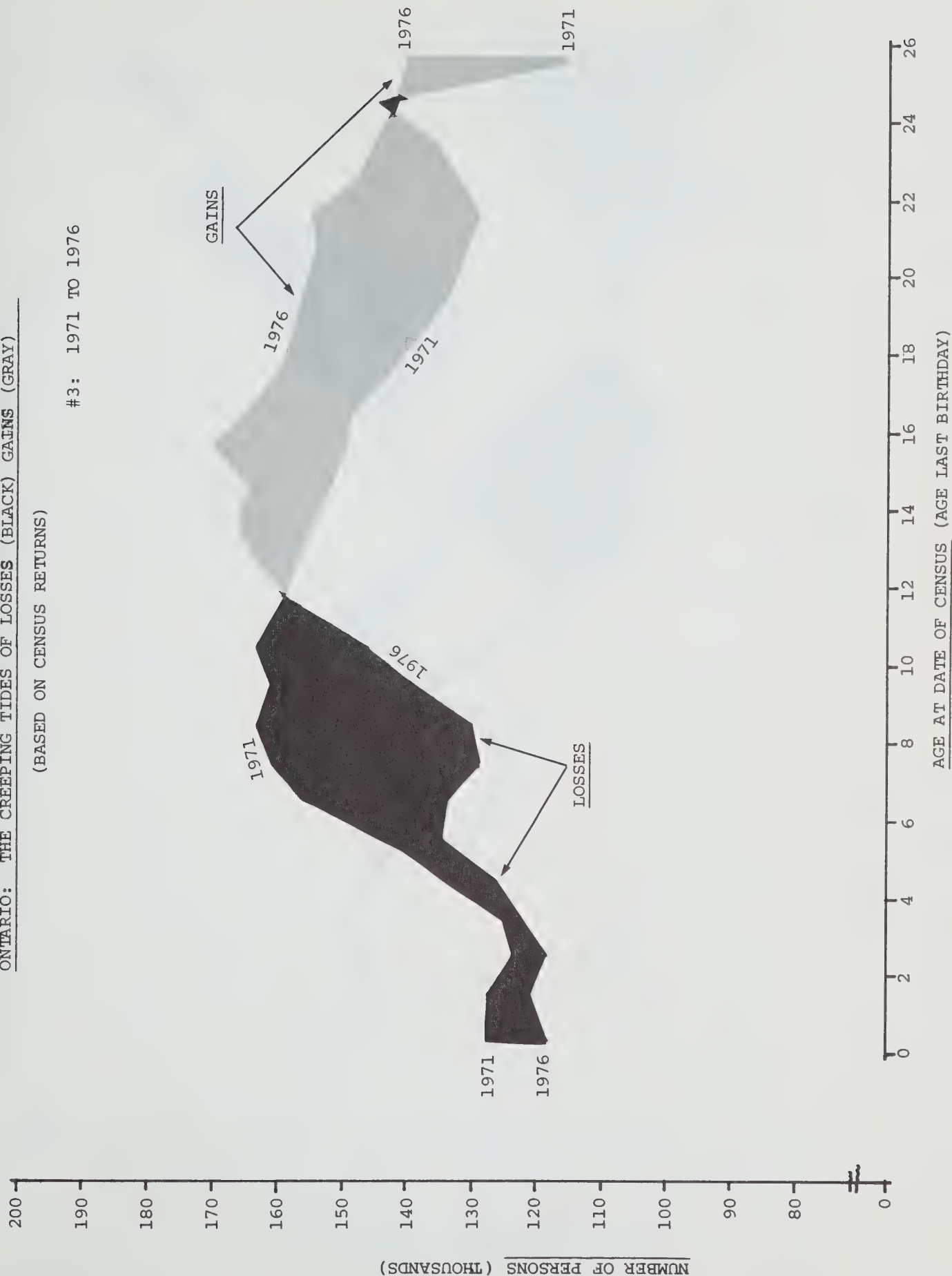


CHART 2.14

ONTARIO: THE CREEPING TIDES OF LOSSES (BLACK) GAINS (GRAY)

(BASED ON CENSUS RETURNS)

#4: 1976 TO 1981

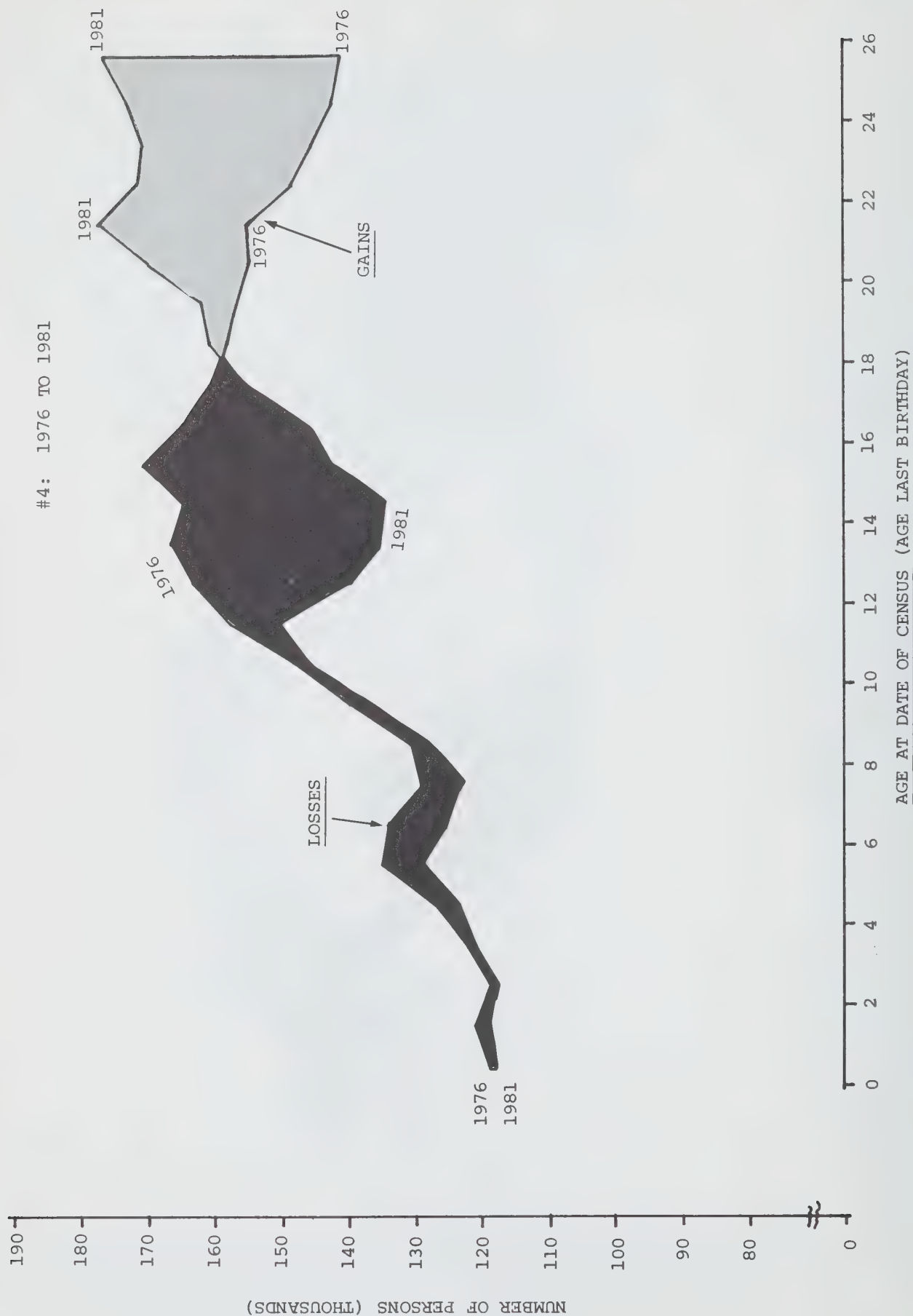
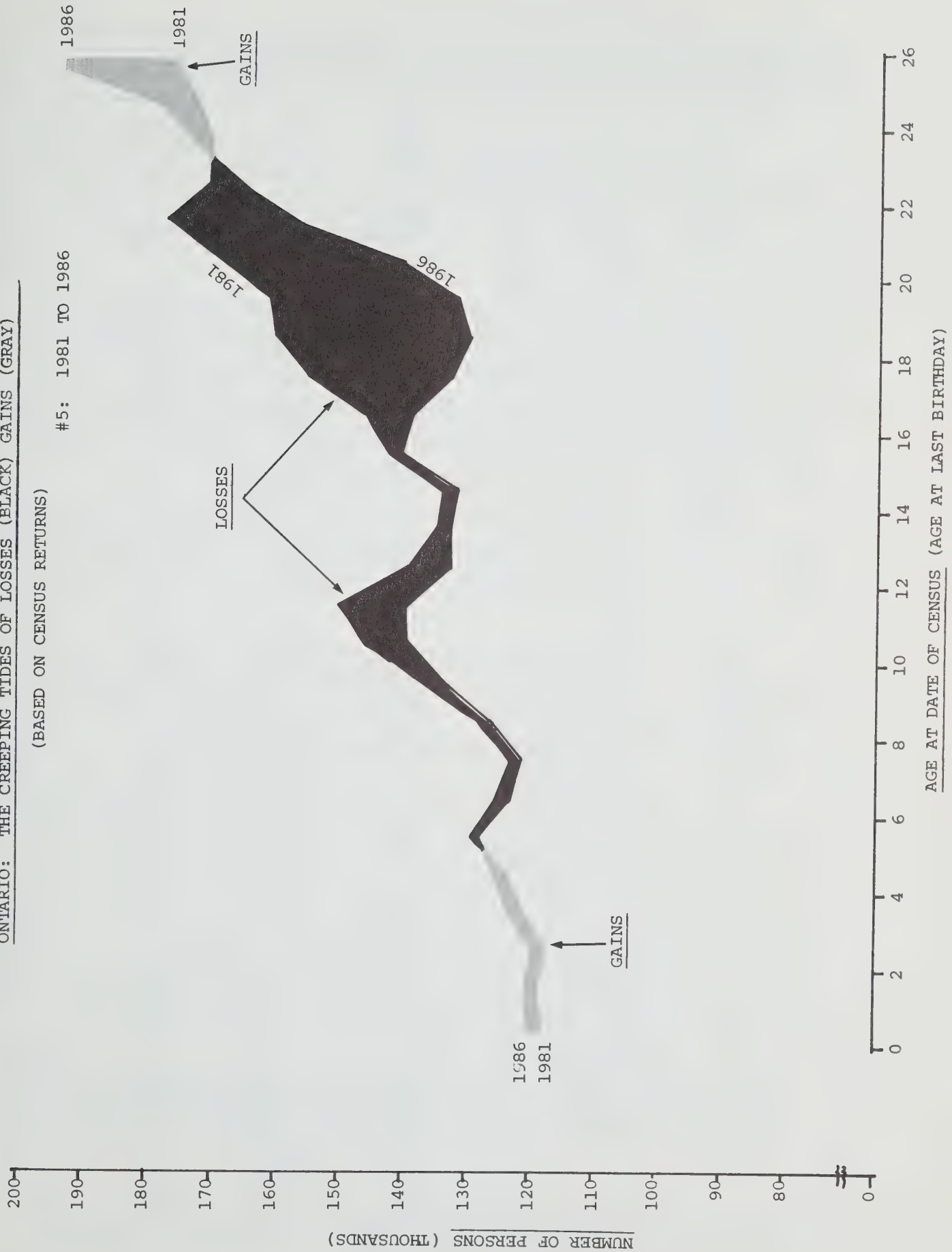


CHART 2.15
ONTARIO: THE CREEPING TIDES OF LOSSES (BLACK) GAINS (GRAY)
(BASED ON CENSUS RETURNS)

#5: 1981 TO 1986



terms of reference. I would point out, nevertheless, that by 1983 the impending shortage of young workers will be foreshadowed, and by 1986 will be severely felt.

As for the situation in the schools, the reader may substitute "grades" for "ages" on the graphs and get a real feeling for the continued nibbling away of enrolment in the elementary schools and the tremendous impact these "losses" will have on secondary school enrolments in the decade between 1976 and 1986.

As a brief side issue, but introduced because we need to use the values later, we have given in Table 2.13 the 1970-72 Canada Life Table of Survivors, by individual years of age, of 100,000 babies born alive. This gives us a standard against which to compare the actual census figures. Any differences would arise through net migration or sudden changes in mortality rates, the latter being a highly unlikely event.

Of special interest is the fact that after the age of two years, mortality rates are so amazingly low throughout the following youthful years that they are often ignored in calculations of other demographic measures and values.

For the total population the growth components are four in number: the population of a province increases through (a) live births and (b) international and interprovincial migration, and decreases through (c) emigration to other provinces and countries and (d) deaths.*

There is some confusion, by the way, in the popular interpretation of the concept of "zero population growth". Some define it as no excess of births over deaths, a situation obviously affected by changes in both birth rates and death rates. Others use the concept of "generation replacement", that is, the birth of enough children to replace the parent generation (of actual and potential parents in an age group). Demographically speaking, daughters are more precious than sons, because they are needed to bear children. Since fewer of them are born, a birth rate of 2.1 is required for zero

* Readers interested in the pictorial representation of these four factors should turn to Graph 5, p. 26, of my September 1977, Canadian Education Association monograph, entitled, "Implications for Education of Recent Trends in Live Births and International and Interprovincial Migration of Children".

TABLE 2.13

LIFE TABLE FOR MALE, FEMALE AND TOTAL

| NUMBER OF SURVIVORS TO AGE X ^R | | | | | | | |
|-------------------------------------------|--------|--------|--------|-----|-------|--------|-------|
| AGE | MALE | FEMALE | TOTAL | AGE | MALE | FEMALE | TOTAL |
| 0 | 100000 | 100000 | 100000 | 65 | 70332 | 83500 | 76916 |
| 1 | 98214 | 98641 | 98428 | 66 | 68158 | 82296 | 75227 |
| 2 | 98106 | 98540 | 98323 | 67 | 65872 | 80992 | 73432 |
| 3 | 98041 | 98466 | 98254 | 68 | 63470 | 79577 | 71524 |
| 4 | 97979 | 98419 | 98199 | 69 | 60958 | 78044 | 69501 |
| 5 | 97916 | 98377 | 98147 | 70 | 58342 | 76392 | 67367 |
| 6 | 97860 | 98340 | 98100 | 71 | 55630 | 74614 | 65122 |
| 7 | 97815 | 98308 | 98062 | 72 | 52831 | 72697 | 62764 |
| 8 | 97778 | 98280 | 98029 | 73 | 49952 | 70628 | 60290 |
| 9 | 97745 | 98256 | 98001 | 74 | 47011 | 68402 | 57707 |
| 10 | 97714 | 98233 | 97974 | 75 | 44027 | 66022 | 55025 |
| 11 | 97681 | 98210 | 97946 | 76 | 41014 | 63483 | 52249 |
| 12 | 97646 | 98187 | 97917 | 77 | 37986 | 60781 | 49384 |
| 13 | 97606 | 98161 | 97884 | 78 | 34951 | 57910 | 46431 |
| 14 | 97554 | 98131 | 97843 | 79 | 31929 | 54873 | 43401 |
| 15 | 97483 | 98097 | 97790 | 80 | 28944 | 51687 | 40316 |
| 16 | 97392 | 98057 | 97725 | 81 | 26018 | 48368 | 37193 |
| 17 | 97282 | 98013 | 97648 | 82 | 23171 | 44932 | 34052 |
| 18 | 97158 | 97965 | 97562 | 83 | 20422 | 41399 | 30911 |
| 19 | 97024 | 97917 | 97471 | 84 | 17796 | 37800 | 27798 |
| 20 | 96883 | 97869 | 97376 | 85 | 15317 | 34178 | 24748 |
| 21 | 96738 | 97823 | 97281 | 86 | 13009 | 30574 | 21792 |
| 22 | 96590 | 97778 | 97184 | 87 | 10886 | 27029 | 18958 |
| 23 | 96442 | 97733 | 97088 | 88 | 8963 | 23586 | 16275 |
| 24 | 96297 | 97688 | 96993 | 89 | 7248 | 20290 | 13769 |
| 25 | 96159 | 97640 | 96900 | 90 | 5750 | 17188 | 11469 |
| 26 | 96029 | 97591 | 96810 | 91 | 4466 | 14319 | 9393 |
| 27 | 95905 | 97540 | 96723 | 92 | 3390 | 11712 | 7551 |
| 28 | 95786 | 97485 | 96636 | 93 | 2508 | 9389 | 5949 |
| 29 | 95667 | 97426 | 96547 | 94 | 1805 | 7364 | 4585 |
| 30 | 95548 | 97363 | 96456 | 95 | 1260 | 5641 | 3451 |
| 31 | 95427 | 97295 | 96361 | 96 | 851 | 4211 | 2531 |
| 32 | 95303 | 97221 | 96262 | 97 | 554 | 3056 | 1805 |
| 33 | 95172 | 97141 | 96157 | 98 | 346 | 2151 | 1249 |
| 34 | 95034 | 97055 | 96045 | 99 | 207 | 1464 | 836 |
| 35 | 94887 | 96961 | 95924 | 100 | 118 | 960 | 539 |
| 36 | 94728 | 96859 | 95794 | 101 | 64 | 605 | 335 |
| 37 | 94556 | 96748 | 95652 | 102 | 32 | 365 | 199 |
| 38 | 94367 | 96627 | 95497 | 103 | 15 | 209 | 112 |
| 39 | 94158 | 96494 | 95326 | 104 | 7 | 114 | 61 |
| 40 | 93927 | 96348 | 95138 | 105 | 3 | 58 | 31 |
| 41 | 93671 | 96187 | 94929 | 106 | | 28 | |
| 42 | 93387 | 96012 | 94700 | 107 | | 12 | |
| 43 | 93073 | 95819 | 94446 | 108 | | 5 | |
| 44 | 92728 | 95611 | 94170 | 109 | | 2 | |
| 45 | 92352 | 95385 | 93869 | 110 | | 1 | |
| 46 | 91940 | 95141 | 93541 | | | | |
| 47 | 91489 | 94876 | 93183 | | | | |
| 48 | 90990 | 94587 | 92789 | | | | |
| 49 | 90435 | 94271 | 92353 | | | | |
| 50 | 89820 | 93925 | 91873 | | | | |
| 51 | 89139 | 93546 | 91343 | | | | |
| 52 | 88387 | 93133 | 90760 | | | | |
| 53 | 87562 | 92682 | 90122 | | | | |
| 54 | 86663 | 92191 | 89427 | | | | |
| 55 | 85688 | 91659 | 88674 | | | | |
| 56 | 84635 | 91084 | 87860 | | | | |
| 57 | 83495 | 90462 | 86979 | | | | |
| 58 | 82257 | 89792 | 86025 | | | | |
| 59 | 80911 | 89071 | 84991 | | | | |
| 60 | 79449 | 88302 | 83876 | | | | |
| 61 | 77867 | 87480 | 82674 | | | | |
| 62 | 76164 | 86597 | 81381 | | | | |
| 63 | 74338 | 85645 | 79992 | | | | |
| 64 | 72392 | 84614 | 78503 | | | | |

* Number of Survivors of a cohort of 100,000 persons i.e. the number of persons still alive at the beginning of each age X.
Source: Statistics Canada - Life Tables Canada and Provinces, 1970-72 (Catalogue 84-532)

population growth. Actually, births have played a major role in our growth, not immigration, at least so far, and deaths, not emigration, have been the major loss factor in most years.

It is important from our point of view, as educators, to distinguish between interprovincial and international migration, since in the former -- but not necessarily in the latter -- we normally have the same language and culture, especially those of school age in the case of both types of migration, and in the net migration for any particular province.

The data given in Tables 2.14(a) and 2.14(b) show, by province, the net interprovincial transfer of children under 16 years of age, plus any 16 and 17 year olds with no taxable income but in receipt of family allowances. Included, to bring the figures up-to-date, are the net transfers for July to December 1977, again by province. These data are secured through Statistics Canada, but originate in the Family Allowances Division of the Department of Health and Welfare. International migration data are obtained from the Department of Manpower and Immigration, again through Statistics Canada.

Observe that Ontario has traditionally gained heavily from the other provinces; not the gain of 18,335 children in 1969-70 followed by 15,323 the next year. (The totals are recorded from July to June after 1958-59, but June to May before that.) A changeover from gains to losses occurred in 1972-73, with a net gain of only 167 children. There was a net loss of 10,012 children in 1974-75, but the losses changed to small gains in the early months of 1977, and if economic conditions improve in Ontario (i.e., more jobs become available) there seems no doubt that the traditional pattern of migration will be resumed.

The net international migration of children under 18 years of age, by province and year from 1968-69 to the present, is shown in Table 2.15. Ontario gains very heavily. Well over 50% of all immigrant children come to Ontario, year after year, and often the gain is far larger than from other provinces.

The information available on the age distribution of all immigrant children who are listed with Ontario as their destination for the past

NET INTERPROVINCIAL MIGRATION OF CHILDREN 15 YEARS OF AGE AND UNDER,
1950-51 TO 1975-76¹

| YEAR | NFLD. | P.E.I. | N.S. | N.B. | QUE. | ONT. | MAN. | SASK. | ALTA. | B.C. | YUKON AND N.W.T. |
|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------|
| 1950-51 | - 743 | + 242 | - 1,569 | - 2,703 | - 626 | + 7,970 | - 1,327 | - 3,271 | + 1,272 | + 1,162 | - |
| 1951-52 | - 490 | - 400 | - 1,382 | - 1,730 | - 389 | + 5,863 | - 1,658 | - 3,949 | + 101 | + 3,744 | - |
| 1952-53 | - 9 | - 343 | - 1,053 | - 1,139 | - 1,803 | + 2,884 | - 1,481 | - 2,010 | + 1,888 | + 3,236 | - |
| 1953-54 | - 99 | - 430 | - 1,607 | - 1,431 | - 1,224 | + 5,154 | - 1,205 | - 108 | + 897 | + 2,392 | - |
| 1954-55 | + 54 | - 495 | - 769 | - 676 | - 705 | + 1,414 | - 771 | - 3,142 | - 370 | + 3,471 | - |
| 1955-56 | - 99 | - 371 | - 1,860 | - 1,091 | - 1,836 | + 5,334 | - 2,370 | - 5,345 | - 1,119 | + 6,801 | - |
| 1956-57 | - 385 | - 489 | - 3,001 | - 860 | - 1,959 | + 5,331 | - 3,627 | - 6,266 | - 1,270 | + 9,082 | - |
| 1957-58 | - 548 | - 14 | - 2,172 | - 18 | - 184 | + 1,986 | - 1,589 | - 2,239 | + 349 | + 2,921 | - |
| 1958-59 | - 374 | + 84 | - 1,058 | + 771 | - 1,057 | + 1,359 | - 376 | - 1,419 | + 2,065 | - 606 | - 53 |
| 1959-60 | - 416 | + 70 | - 1,526 | - 472 | - 550 | + 2,457 | - 627 | - 3,378 | + 2,344 | + 1,539 | - 60 |
| 1960-61 | - 77 | + 99 | - 925 | + 429 | + 1,757 | - 1,103 | - 253 | - 2,441 | + 1,736 | + 314 | + 141 |
| 1961-62 | - 18 | + 418 | - 1,230 | - 893 | + 2,885 | - 893 | - 563 | - 3,490 | + 2,032 | + 1,293 | + 49 |
| 1962-63 | - 256 | - 232 | + 217 | - 1,426 | + 242 | + 593 | + 744 | - 3,870 | + 815 | + 3,719 | - 226 |
| 1963-64 | - 965 | - 229 | - 2,273 | - 1,655 | - 208 | + 4,445 | - 1,541 | - 1,685 | - 1,707 | + 6,151 | - 484 |
| 1964-65 | - 1,346 | - 521 | - 3,307 | - 1,128 | - 589 | + 6,241 | - 2,889 | - 1,913 | - 2,576 | + 8,419 | - 909 |
| 1965-66 | - 2,465 | - 517 | - 3,030 | - 2,760 | - 3,412 | +11,004 | - 4,746 | - 3,232 | - 4,386 | +14,012 | - 468 |
| 1966-67 | - 2,052 | - 387 | - 2,616 | - 2,497 | - 3,898 | + 8,526 | - 4,360 | - 3,763 | - 507 | +12,148 | - 594 |
| 1967-68 | - 1,435 | - 163 | - 1,185 | - 925 | - 5,391 | + 5,035 | - 2,696 | - 2,753 | + 1,516 | + 8,177 | - 180 |
| 1968-69 | - 949 | - 351 | - 764 | - 1,791 | - 5,290 | + 5,805 | - 2,409 | - 4,983 | + 1,860 | + 8,852 | + 20 |
| 1969-70 | - 3,445 | - 687 | - 1,783 | - 2,950 | -10,322 | +18,335 | - 3,505 | - 9,334 | + 1,932 | +11,614 | + 145 |
| 1970-71 | - 1,795 | - 43 | - 1,571 | - 433 | -10,500 | +15,323 | - 2,423 | - 7,884 | + 1,201 | + 7,511 | + 614 |
| 1971-72 | - 257 | - 13 | - 636 | - 114 | - 5,612 | + 4,693 | - 3,228 | - 6,307 | + 484 | +10,817 | + 173 |
| 1972-73 | - 886 | + 147 | + 1,239 | + 425 | - 4,737 | + 167 | - 2,145 | - 5,231 | + 733 | +10,407 | - 119 |
| 1973-74 | - 871 | + 278 | - 167 | + 62 | - 293 | - 1,335 | - 1,110 | - 2,176 | + 1,897 | + 4,250 | - 535 |
| 1974-75 | + 236 | + 411 | + 667 | + 1,914 | - 2,316 | -10,012 | - 2,253 | + 544 | + 7,006 | + 3,838 | - 35 |
| 1975-76 | + 210 | + 185 | + 913 | + 1,799 | - 2,970 | - 7,209 | - 1,927 | + 2,183 | + 7,979 | - 1,025 | - 138 |
| 1976-77 | - 907 | + 426 | - 173 | + 355 | - 6,546 | - 1,965 | - 1,000 | + 1,907 | + 7,911 | + 447 | - 449 |

¹ Figures since January 1, 1974 include 16 and 17 year olds with no taxable incomes.

Note: The data are compiled for a census year (June to May) up to and including 1958-59 and for July to June thereafter. Up to 1964, the interprovincial emigration of children does not equal the interprovincial immigration of children due to incomplete data.

Source: Family Allowance Statistics

TABLE 2.14(b)

NET INTERPROVINCIAL MIGRATION OF CHILDREN

JULY 1977 TO DEC. 1977

(FROM FAMILY ALLOWANCES STATISTICS,
HEALTH AND WELFARE CANADA)

| PROVINCE | TOTAL: JULY 1977 TO DEC. 1977 | JULY 1977 TO DECEMBER 1977 | | | | | |
|---------------------------|-------------------------------------|----------------------------|--------|--------|--------|--------|--------|
| | | JULY | AUGUST | SEPT. | OCT. | NOV. | DEC. |
| Newfoundland | - 907 | - 35 | - 21 | -217 | -168 | -180 | +113 |
| | (Cum) | - 35 | - 56 | -273 | -441 | -621 | -508 |
| Prince Edward Island | + 420 | 61 | 46 | 53 | 66 | 21 | 0 |
| | (Cum) | 61 | 107 | 160 | 226 | 247 | 247 |
| Nova Scotia | - 173 | - 7 | 184 | - 28 | - 35 | - 39 | + 58 |
| | (Cum) | - 7 | 177 | 149 | 114 | 75 | 133 |
| New Brunswick | + 355 | 67 | 120 | 25 | 47 | 65 | + 39 |
| | (Cum) | 67 | 187 | 212 | 259 | 324 | 363 |
| Quebec | -6,546 | -1,164 | -2,106 | -1,758 | -1,733 | -1,407 | -1,176 |
| | (Cum) | -1,164 | -3,270 | -5,028 | -6,761 | -8,168 | -9,344 |
| Ontario | -1,965 | 24 | 386 | 938 | 430 | 235 | 212 |
| | (Cum) | 24 | 410 | 1,348 | 1,778 | 2,013 | 2,225 |
| Manitoba | -1,000 | -371 | -334 | -291 | -198 | 9 | - 33 |
| | (Cum) | -371 | -705 | -996 | -1,194 | -1,185 | -1,218 |
| Saskatchewan | 1,907 | 66 | 5 | 179 | 90 | - 18 | - 66 |
| | (Cum) | 66 | 71 | 250 | 340 | 322 | 256 |
| Alberta | 7,911 | 942 | 1,344 | 666 | 1,052 | 449 | 265 |
| | (Cum) | 942 | 2,286 | 2,952 | 4,004 | 4,453 | 4,718 |
| British Columbia | 447 | 392 | 370 | 405 | 455 | 972 | 505 |
| | (Cum) | 392 | 762 | 1,167 | 1,622 | 2,594 | 3,099 |
| North West Territories | - 184 | 6 | - 11 | 37 | - 27 | -118 | - 37 |
| | (Cum) | 6 | - 5 | 32 | - 5 | -113 | -150 |
| Yukon | - 265 | 19 | 17 | - 9 | 21 | 11 | - 12 |
| | (Cum) | 19 | 36 | 27 | 48 | 59 | 47 |

TABLE: 2.15

NET INTERNATIONAL MIGRATION OF CHILDREN UNDER 18 YEARS OF AGE, 1970-71 TO 1975-76

| YEAR | NFLD. | P.E.I. | N.S. | N.B. | QUE. | ONT. | MAN. | SASK. | ALTA. | B.C. | YUKON & N.W.T. | TOTAL |
|----------|--------|--------|------|------|-------|--------|-------|-------|-------|-------|----------------------|--------|
| 1968-69 | -201 | - 54 | -167 | -698 | 1,722 | 13,501 | 1,312 | 287 | 2,355 | 4,228 | 28 | 22,313 |
| 1969-70 | -101 | - 50 | 149 | -431 | 309 | 13,995 | 1,206 | 110 | 2,104 | 4,448 | 48 | 21,787 |
| 1970-71 | -279 | - 55 | - 26 | -235 | - 925 | 11,070 | 1,064 | - 86 | 1,795 | 3,535 | 41 | 15,899 |
| 1971-72 | -316 | - 58 | -109 | -123 | - 999 | 9,845 | 899 | 45 | 1,654 | 3,404 | 45 | 14,287 |
| 1972-73 | - 67 | 38 | 247 | 215 | 933 | 15,696 | 1,162 | 175 | 2,155 | 5,401 | 89 | 26,044 |
| 1973-74 | -1,274 | 85 | 381 | 757 | 4,842 | 25,703 | 1,690 | 563 | 3,251 | 7,572 | 61 | 43,631 |
| 1974-75 | -909 | 83 | 610 | 842 | 6,303 | 30,200 | 2,194 | 737 | 4,086 | 9,605 | 115 | 53,866 |
| 1975-76 | -139 | 21 | 210 | 651 | 5,947 | 22,757 | 1,821 | 564 | 4,488 | 6,191 | 60 | 42,571 |
| 1976-77* | -222 | 8 | 177 | 328 | 5,962 | 15,457 | 1,459 | 558 | 3,831 | 3,813 | 35 | 31,406 |

Note: S.C. Cat. #81-216.

*unpublished Statistics Canada data.

few years is given in Table 2.16. The percentages of international immigrants under 18 years of age by official language coming to Ontario from 1970-71 to date are shown in Table 2.17. There have been quite marked changes in country of origin of immigrants in recent years, and the relevant data for 1962 to 1976 are given in Table 2.18. Obviously the shift in country of last permanent residence, combined with the fact that over 40% speak neither English nor French, poses some major problems for Ontario educators and others.

To get a summary of the effects of migration of both types on the age distributions at the time of the 1976 census, we calculated for each province and territory the number of persons at each single year of age from under 1 to 25 years, based on the Life Table survival values. Knowing the actual number of persons at the census, one can then by subtraction determine the gains through migration. Some of the graphs (2.16 through 2.28) are extraordinary, and reveal gaps in the information that simply must be filled.

For Ontario, the gains through migration are spread over practically the whole under 1 to 25 years range, except for an unexpected "loss" of babies under 3 years of age, an unexplained mystery. The gains are very great indeed for the late teens and early twenties. For the four Atlantic provinces, observe the unexpected gains of young children of school age, again something of a mystery. We suspect they have come back in large numbers from the United States. There are gains in Quebec of children to be educated, but losses beyond age 16, heavy losses for Saskatchewan and fantastic gains for Alberta and British Columbia (Go West, Young Person?). For the Yukon and Northwest Territories we used the Saskatchewan Life Table values to calculate the expected numbers, and hence the "losses" may be more apparent than real. But the pattern across our country is clear enough, with shifts from East to West, with Ontario as the pivot. In recent months Ontario has been gaining heavily from Quebec but losing at about the same rate to Alberta and British Columbia.

What the future holds for migration shifts depends in large part, it seems, upon unemployment and general economic conditions. Young people move, with their children and other dependents, to the geographic areas where jobs

TABLE 2.16

IMMIGRATION TO ONTARIO OF CHILDREN AGED EIGHTEEN AND UNDER BY AGE GROUPS AND SINGLE YEARS OF AGE, 1969-1976¹

| Age group/ single years ² | 1969 | 1970 | 1971 | 1972 | 1973 ³ | 1974 ³ | 1975 | 1976 |
|--------------------------------------------|--------|--------|--------|--------|-------------------|-------------------|--------|--------|
| 0-4 | 7,490 | 6,793 | 6,322 | 5,546 | 7,860 | 10,230 | 8,437 | 5,416 |
| 0 | 671 | 602 | | 463 | 487 | 507 | 663 | 522 |
| 1 | 1,695 | 1,594 | | 1,246 | 1,241 | 1,677 | 2,001 | 1,714 |
| 2 | 1,763 | 1,599 | | 1,239 | 1,319 | 1,933 | 2,428 | 1,909 |
| 3 | 1,714 | 1,452 | | 1,212 | 1,286 | 1,869 | 2,564 | 2,138 |
| 4 | 1,647 | 1,456 | | 1,162 | 1,213 | 1,874 | 2,574 | 2,154 |
| 5-9 | 6,833 | 6,152 | 4,999 | 5,320 | 8,179 | 11,776 | 10,386 | 7,177 |
| 5 | 1,639 | 1,363 | | 1,063 | 1,137 | 1,832 | 2,569 | 2,212 |
| 6 | 512 | 1,371 | | 1,076 | 1,149 | 1,712 | 2,448 | 2,188 |
| 7 | 1,361 | 1,213 | | 1,042 | 1,095 | 1,644 | 2,350 | 2,000 |
| 8 | 1,213 | 1,158 | | 930 | 1,007 | 1,540 | 2,265 | 2,005 |
| 9 | 1,108 | 1,047 | | 88 | 932 | 1,451 | 2,144 | 1,981 |
| 10-14 | 4,362 | 4,078 | 3,556 | 3,757 | 5,860 | 8,684 | 8,450 | 6,147 |
| 10 | 994 | 994 | | 805 | 916 | 1,346 | 2,047 | 1,851 |
| 11 | 985 | 857 | | 737 | 802 | 1,285 | 1,815 | 1,827 |
| 12 | 910 | 830 | | 716 | 740 | 1,168 | 1,688 | 1,692 |
| 13 | 747 | 713 | | 641 | 669 | 1,053 | 1,517 | 1,572 |
| 14 | 726 | 684 | | 657 | 630 | 1,008 | 1,617 | 1,508 |
| 15-19 | 4,460 | 4,125 | 3,476 | 3,663 | 5,731 | 6,558 | 5,958 | 4,374 |
| 15 | 713 | 647 | | 623 | 618 | 981 | 1,412 | 1,441 |
| 16 | 863 | 818 | | 656 | 730 | 1,163 | 1,433 | 1,371 |
| 17 | 1,214 | 1,151 | | 1,021 | 1,030 | 1,554 | 1,771 | 1,480 |
| 18 | 1,670 | 1,509 | | 1,176 | 1,285 | 2,033 | 1,942 | 1,666 |
| Total | 13,145 | 21,148 | 17,353 | 18,286 | 27,630 | 37,248 | 33,231 | 23,314 |

¹ Unpublished data supplied by Department of Manpower and Immigration, Ottawa. The figures, although accurate, differ slightly from those previously published.

² Computed as of December 31st each year.

³ The figures for these years are slightly inflated, as individuals who entered Canada without "landed immigrant" status applied for such status under the "Adjustment of Status Program" administered by the Department of Manpower and Immigration.

TABLE 2.17

PERCENTAGES OF INTERNATIONAL IMMIGRANTS TO ONTARIO UNDER 18 YEARS OF AGE,
BY OFFICIAL LANGUAGE(S) SPOKEN
1970-71 TO 1975-76

| Year | English | French | English & French | Neither English Nor French | Total |
|---------|---------|--------|---------------------|----------------------------------|-------|
| 1970-71 | 55.0 | 1.2 | 0.2 | 43.6 | 100.0 |
| 1971-72 | 55.1 | 0.8 | 0.2 | 43.9 | 100.0 |
| 1972-73 | 57.7 | 1.0 | 0.2 | 41.1 | 100.0 |
| 1973-74 | 57.0 | 0.8 | 0.2 | 42.0 | 100.0 |
| 1974-75 | 56.4 | 0.8 | 0.2 | 42.6 | 100.0 |
| 1975-76 | 60.0 | 0.7 | 0.2 | 39.1 | 100.0 |

Source: Department of Manpower and Immigration

TABLE 2.18

IMMIGRATION TO ONTARIO BY MAJOR COUNTRIES OF LAST PERMANENT RESIDENCE, 1962-76

| YEAR | U.K. & IRELAND | BELG., FR., GER., NETH. | ITALY | PORTUGAL & GREECE | TOTAL OF EUROPE* | U.S.A. | WEST INDIAN ANTILLES** | SO. & CEN. AMERICA | AFRICA | ASIA | AUSTRALASIA*** | OTHER**** | GRAND TOTAL |
|------|-------------------|----------------------------|--------|----------------------|---------------------|--------|---------------------------|-----------------------|--------|--------|----------------|-----------|----------------|
| 1962 | 9,448 | 4,382 | 7,664 | 3,066 | 28,477 | 5,093 | 827 | 693 | 536 | 963 | 592 | 29 | 37,210 |
| 1963 | 16,320 | 5,523 | 8,734 | 4,062 | 38,909 | 5,295 | 1,212 | 1,055 | 700 | 1,220 | 706 | 119 | 49,216 |
| 1964 | 19,643 | 5,558 | 12,821 | 5,316 | 49,348 | 5,364 | 1,105 | 1,418 | 1,019 | 2,291 | 917 | 6 | 61,468 |
| 1965 | 24,943 | 7,521 | 18,457 | 6,442 | 63,962 | 6,099 | 1,669 | 1,523 | 881 | 4,508 | 1,041 | 19 | 70,702 |
| 1966 | 41,635 | 8,606 | 21,722 | 8,743 | 88,171 | 6,850 | 2,314 | 1,555 | 1,362 | 5,783 | 1,543 | 43 | 107,621 |
| 1967 | 38,561 | 10,158 | 19,612 | 12,701 | 89,792 | 7,011 | 5,117 | 1,910 | 1,660 | 9,144 | 2,189 | 27 | 116,850 |
| 1968 | 22,945 | 8,662 | 13,592 | 9,976 | 68,386 | 8,200 | 4,798 | 1,700 | 1,639 | 9,565 | 1,824 | 43 | 96,155 |
| 1969 | 20,348 | 6,433 | 6,929 | 8,798 | 51,664 | 9,400 | 8,487 | 3,194 | 1,266 | 10,588 | 1,915 | 74 | 86,588 |
| 1970 | 17,013 | 4,724 | 5,702 | 9,039 | 45,010 | 10,128 | 8,523 | 3,639 | 1,365 | 10,039 | 1,897 | 131 | 80,732 |
| 1971 | 9,892 | 2,754 | 3,799 | 8,624 | 30,345 | 9,237 | 7,357 | 3,581 | 1,489 | 10,928 | 1,333 | 87 | 64,357 |
| 1972 | 11,790 | 2,716 | 3,090 | 8,148 | 30,333 | 9,063 | 5,516 | 3,189 | 3,509 | 11,066 | 1,009 | 120 | 63,805 |
| 1973 | 17,000 | 3,526 | 3,824 | 13,206 | 43,648 | 9,945 | 13,960 | 8,876 | 3,983 | 21,570 | 1,083 | 122 | 103,187 |
| 1974 | 22,698 | 3,941 | 3,567 | 15,848 | 52,481 | 9,749 | 15,676 | 9,530 | 5,313 | 26,040 | 1,072 | 254 | 120,115 |
| 1975 | 18,868 | 3,190 | 3,396 | 8,673 | 39,240 | 7,723 | 11,993 | 9,817 | 5,086 | 23,463 | 794 | 355 | 98,471 |
| 1976 | 11,569 | 2,265 | 2,457 | 4,961 | 24,823 | 6,292 | 9,196 | 6,987 | 3,792 | 20,059 | 683 | 199 | 72,031 |

Source: Department of Manpower and Immigration, Immigration Statistics (1962-76). Ottawa, Queen's Printer.

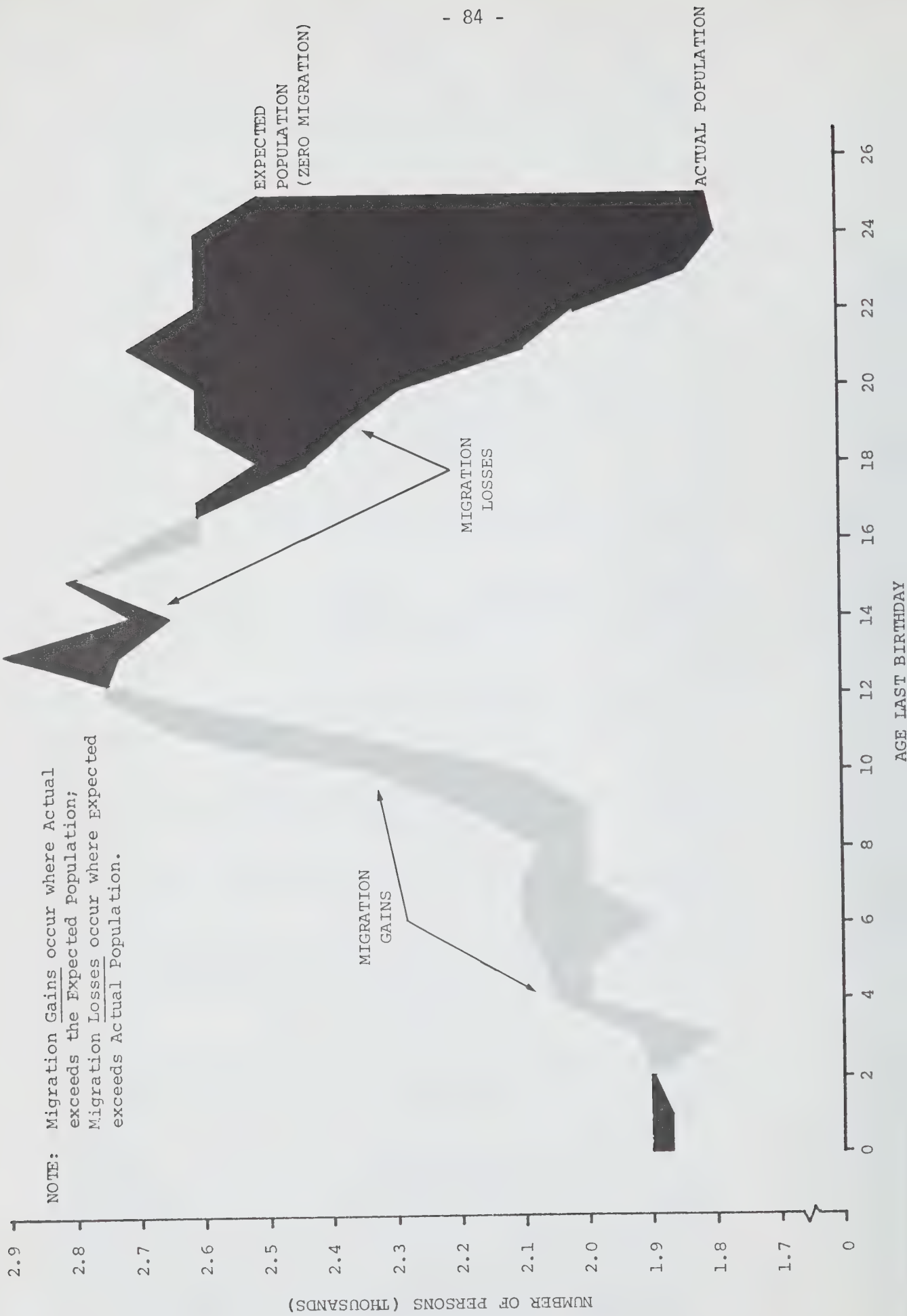
*Including countries other than those listed.

**Including all the West Indies in the Caribbean Sea, except the Bahamas.

***Includes Australia, New Zealand, Tasmania, and British Commonwealth nations in the SW Pacific.

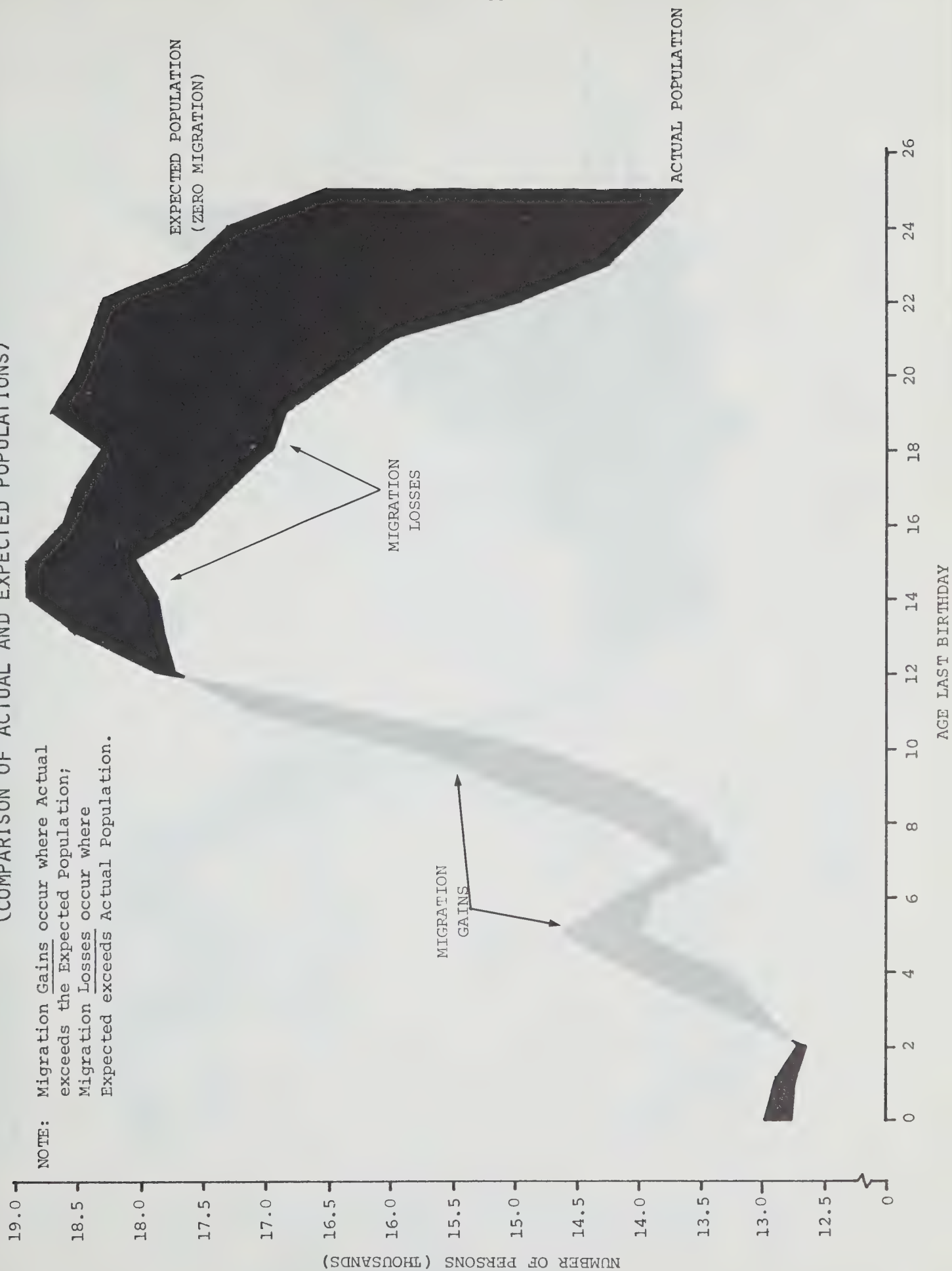
****Including Oceania, ocean islands and other countries, n.e.s.

PRINCE EDWARD ISLAND: MIGRATION EFFECTS - 1976
(COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

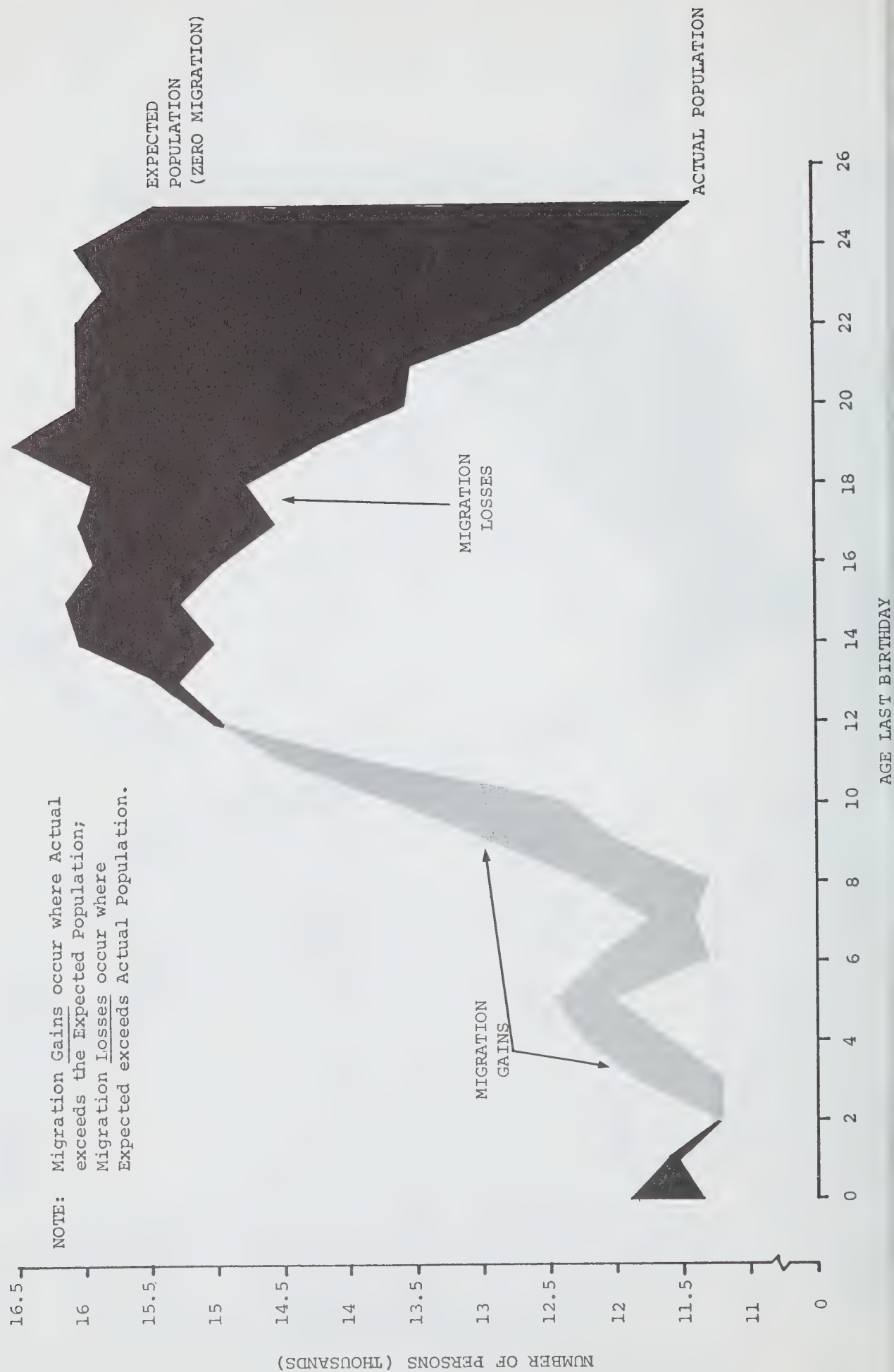


NOVA SCOTIA: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

NOTE: Migration Gains occur where Actual exceeds the Expected Population;
Migration Losses occur where Expected exceeds Actual Population.

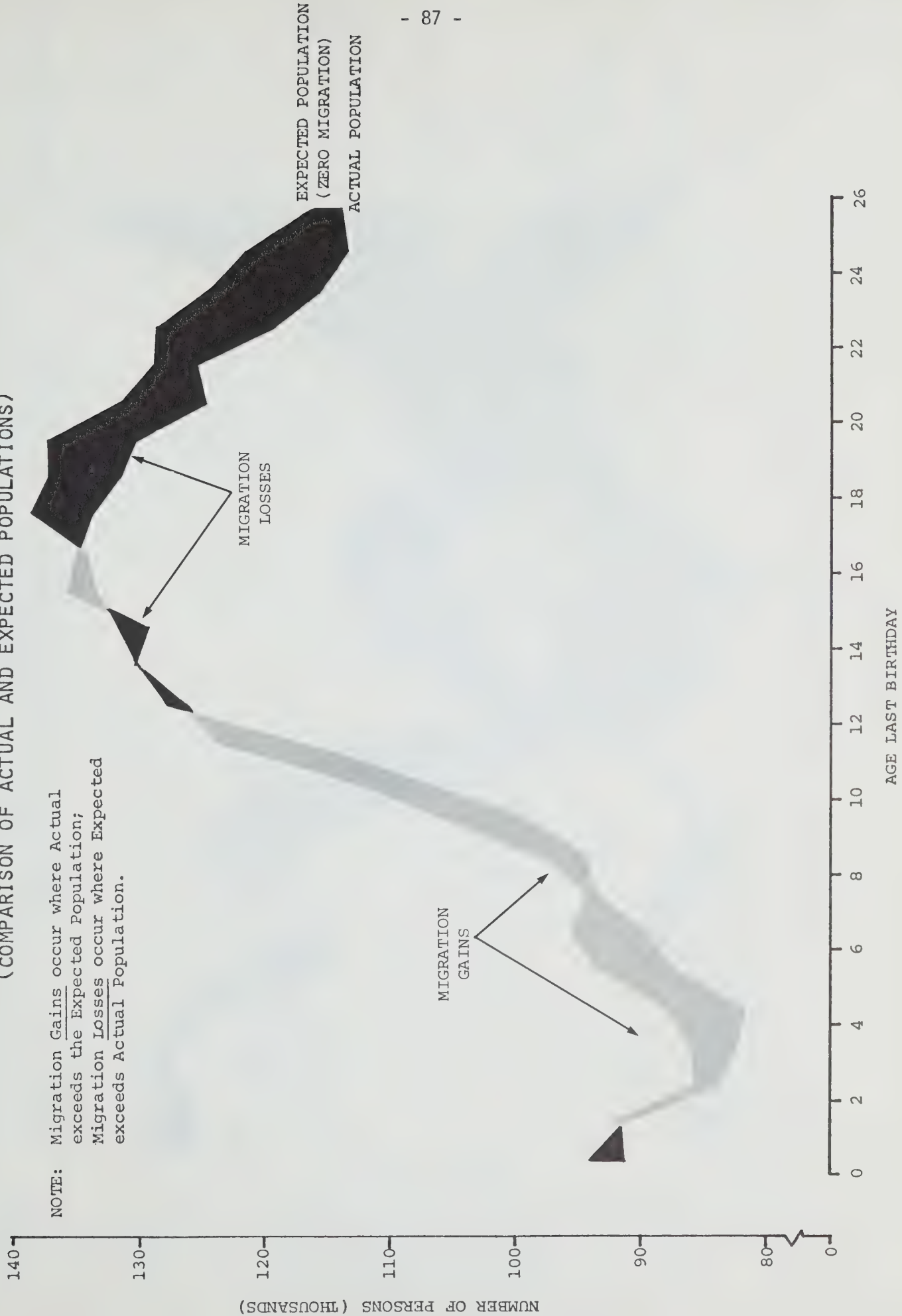


NEW BRUNSWICK: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

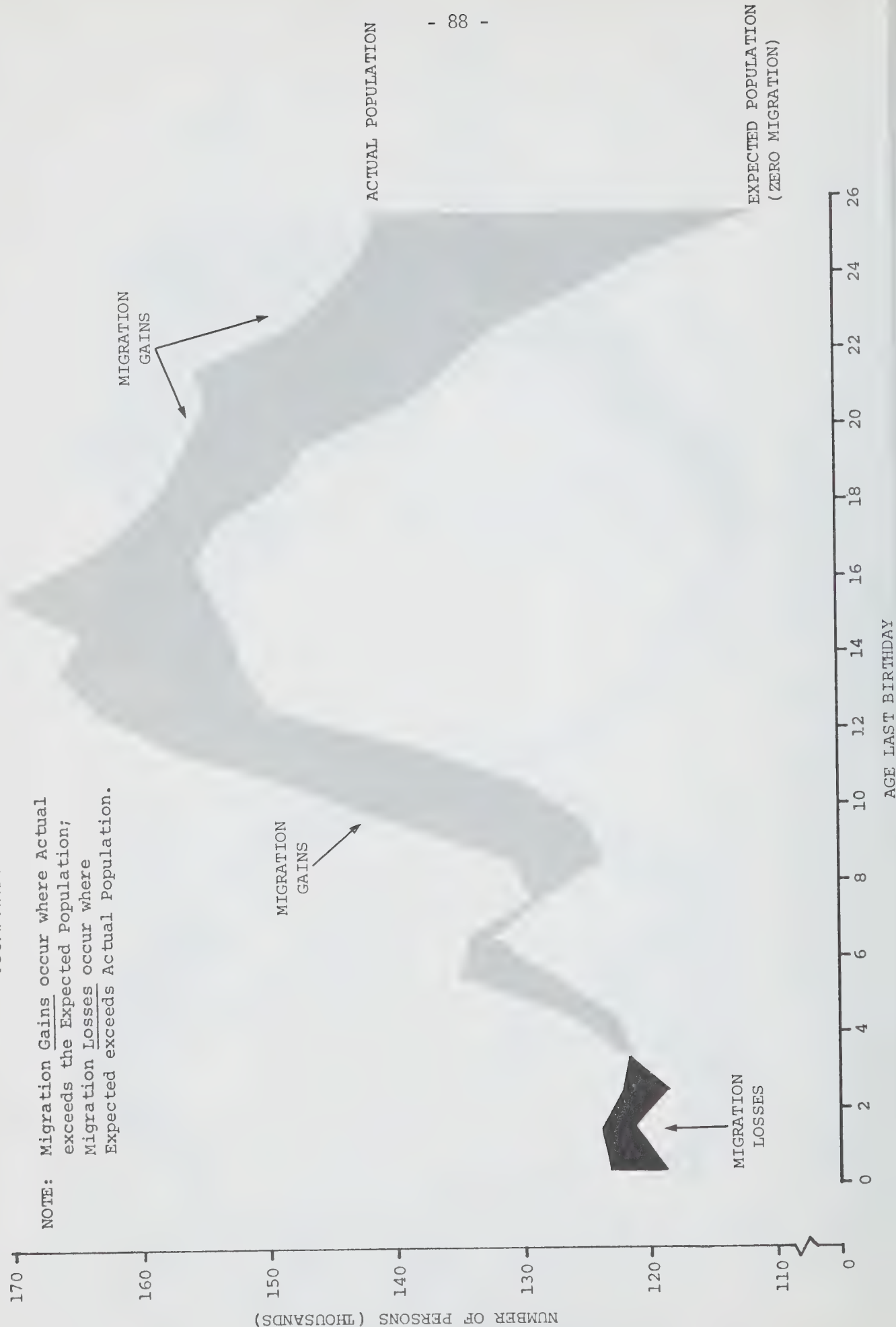


QUEBEC: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

NOTE: Migration Gains occur where Actual exceeds the Expected Population;
Migration Losses occur where Expected exceeds Actual Population.

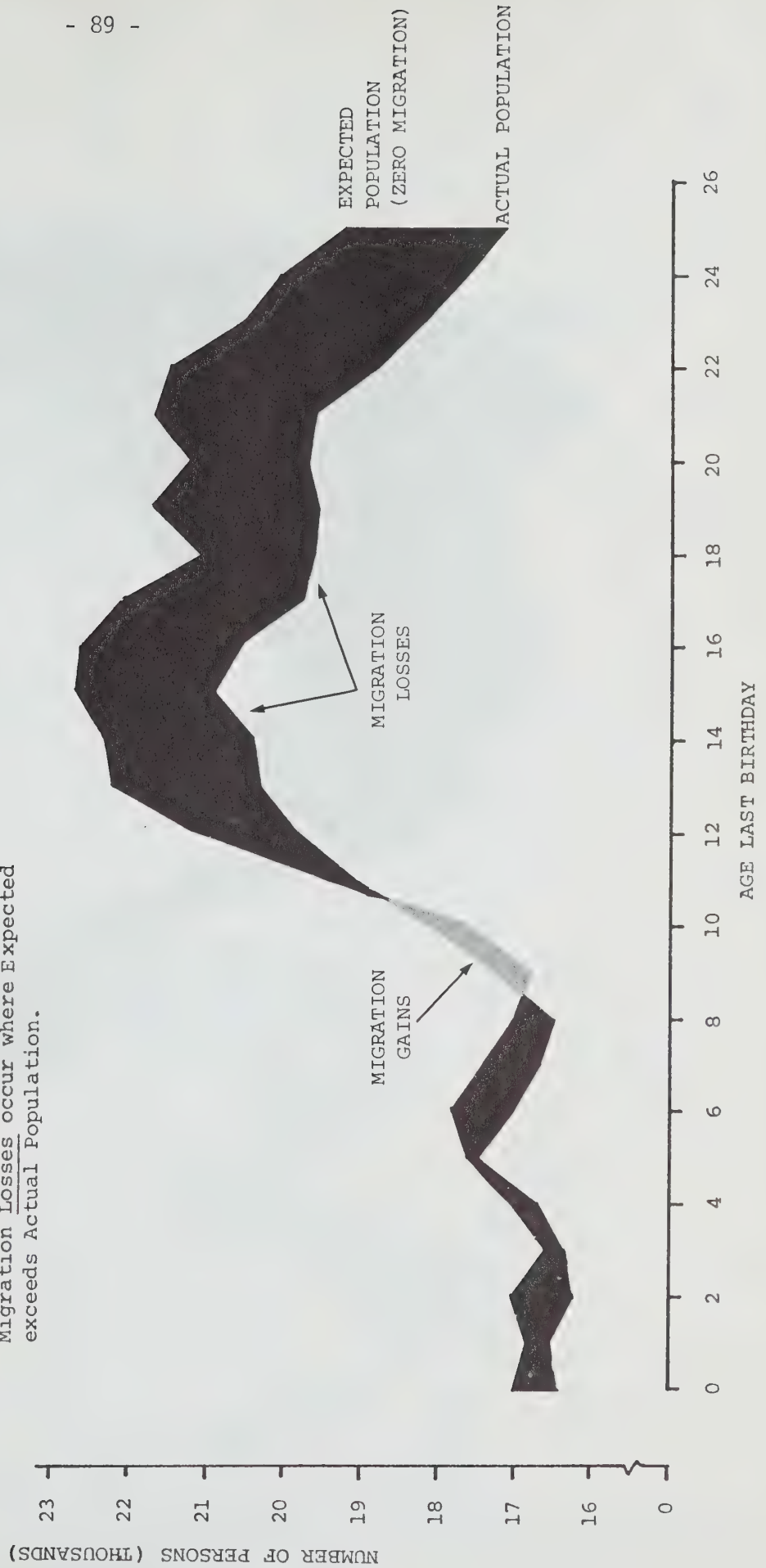


ONTARIO: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATION)

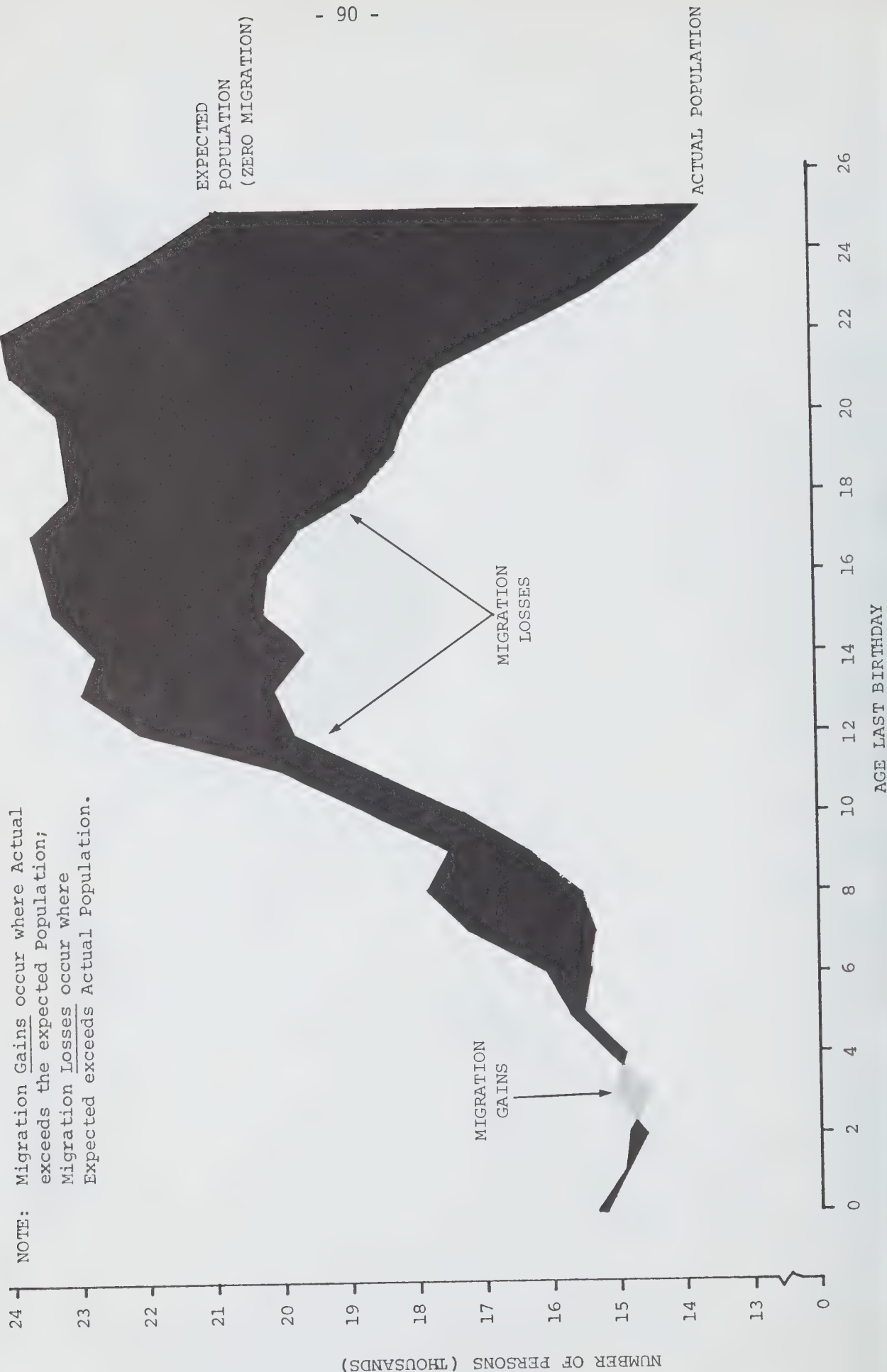


MANITOBA: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

NOTE: Migration Gains occur where Actual exceeds the Expected Population;
Migration Losses occur where Expected exceeds Actual Population.



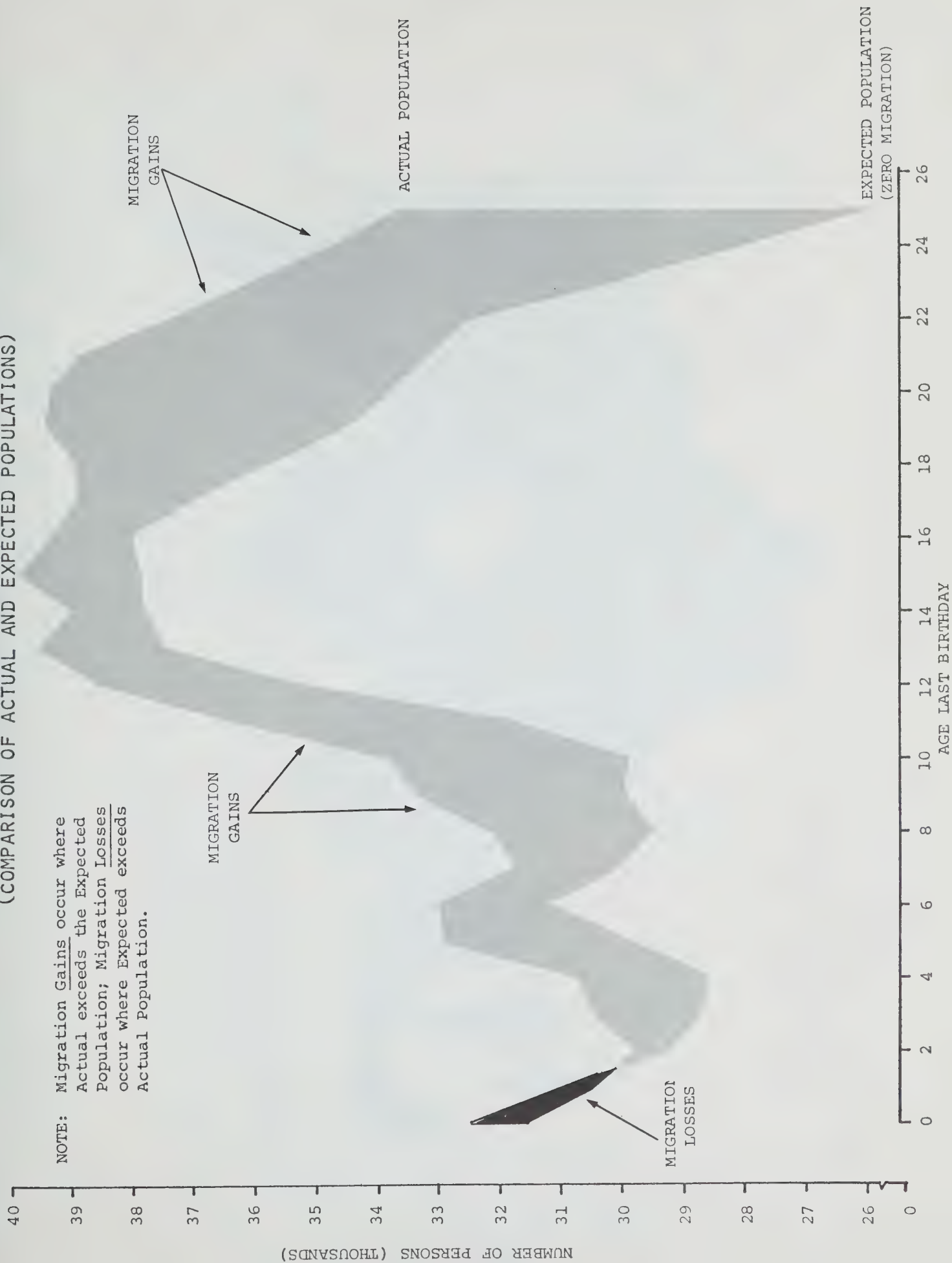
SASKATCHEWAN: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)



ALBERTA: MIGRATION EFFECTS - 1976

(COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

NOTE: Migration Gains occur where Actual exceeds the Expected Population; Migration Losses occur where Expected exceeds Actual Population.



BRITISH COLUMBIA: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

- 92 -

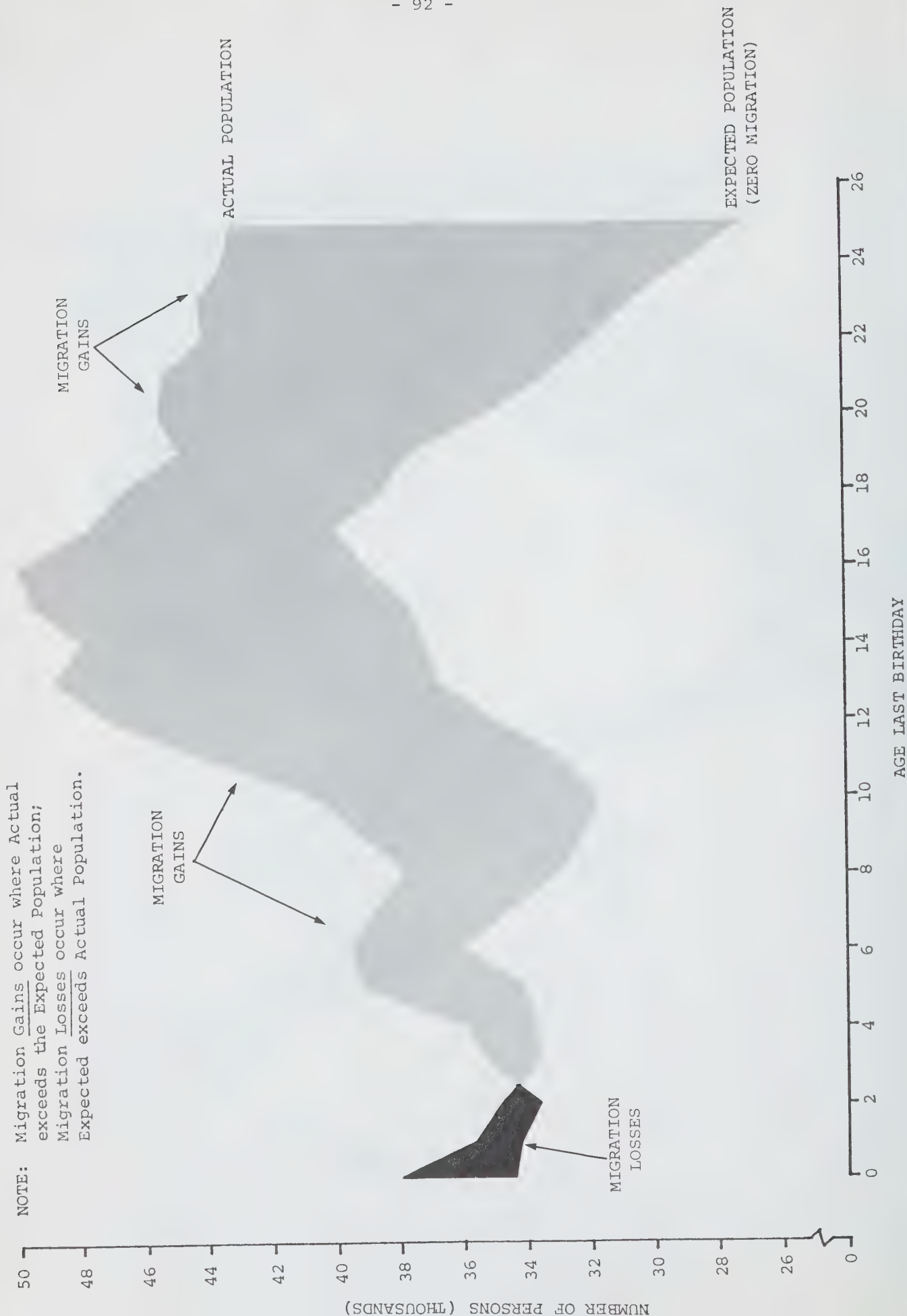
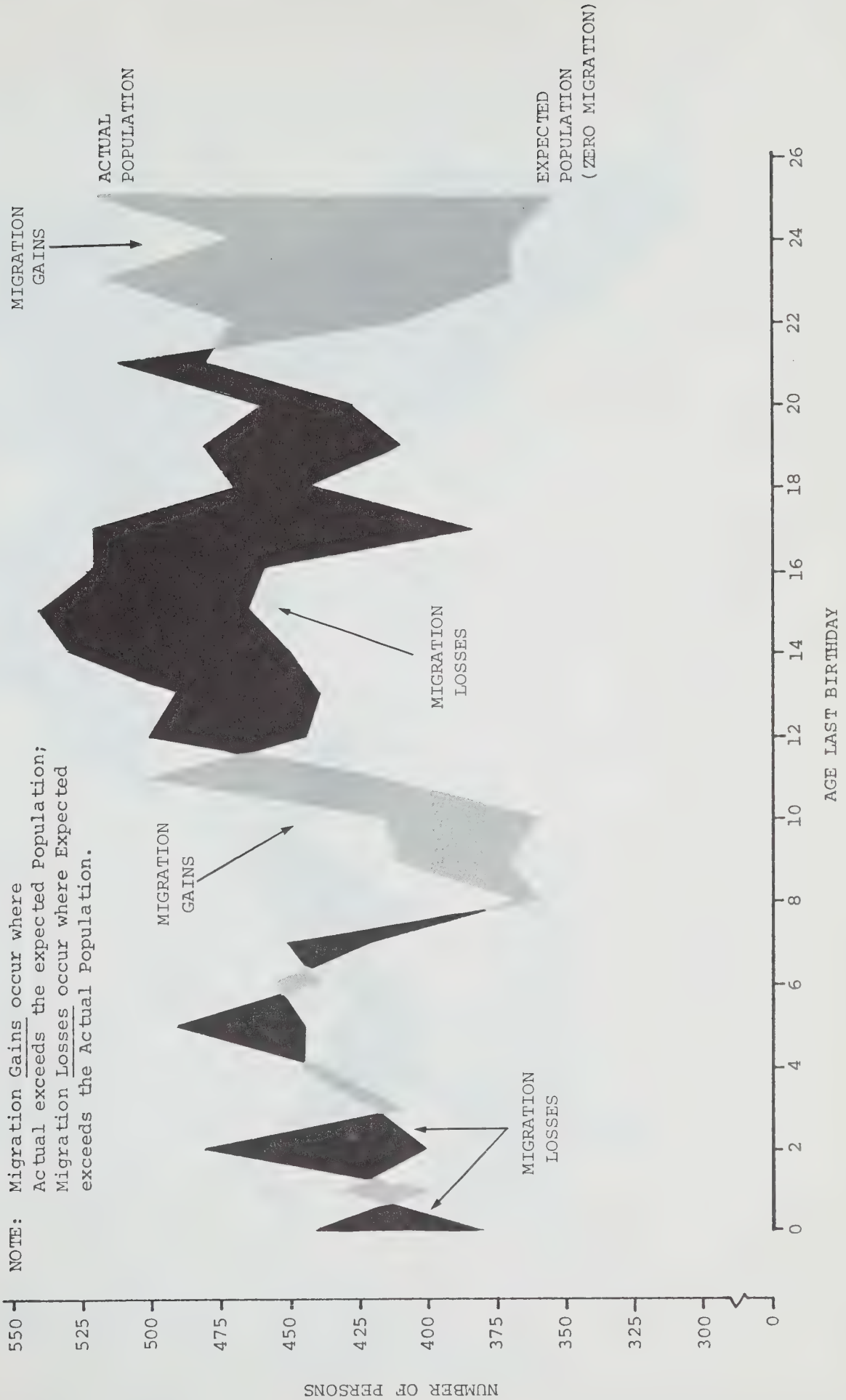


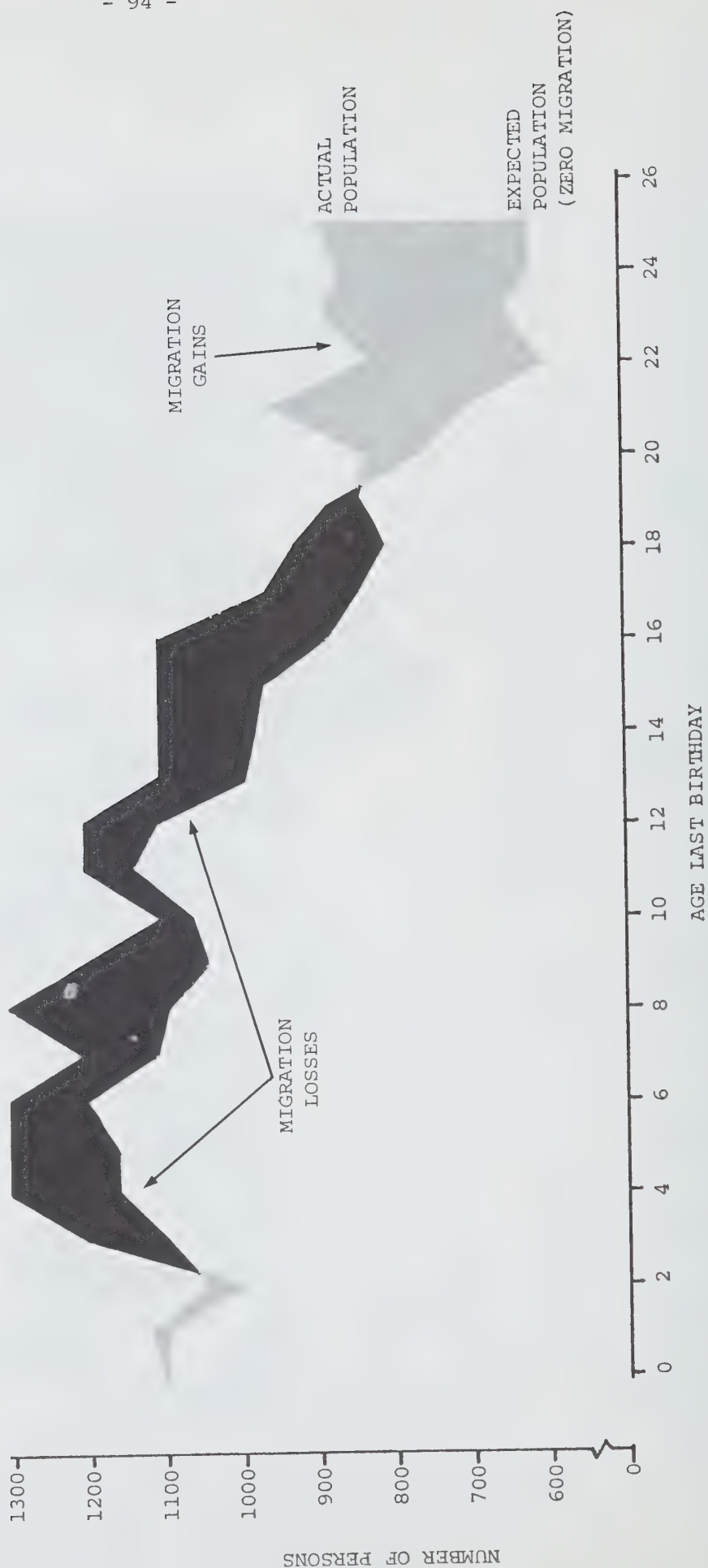
CHART 2.25

YUKON: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)



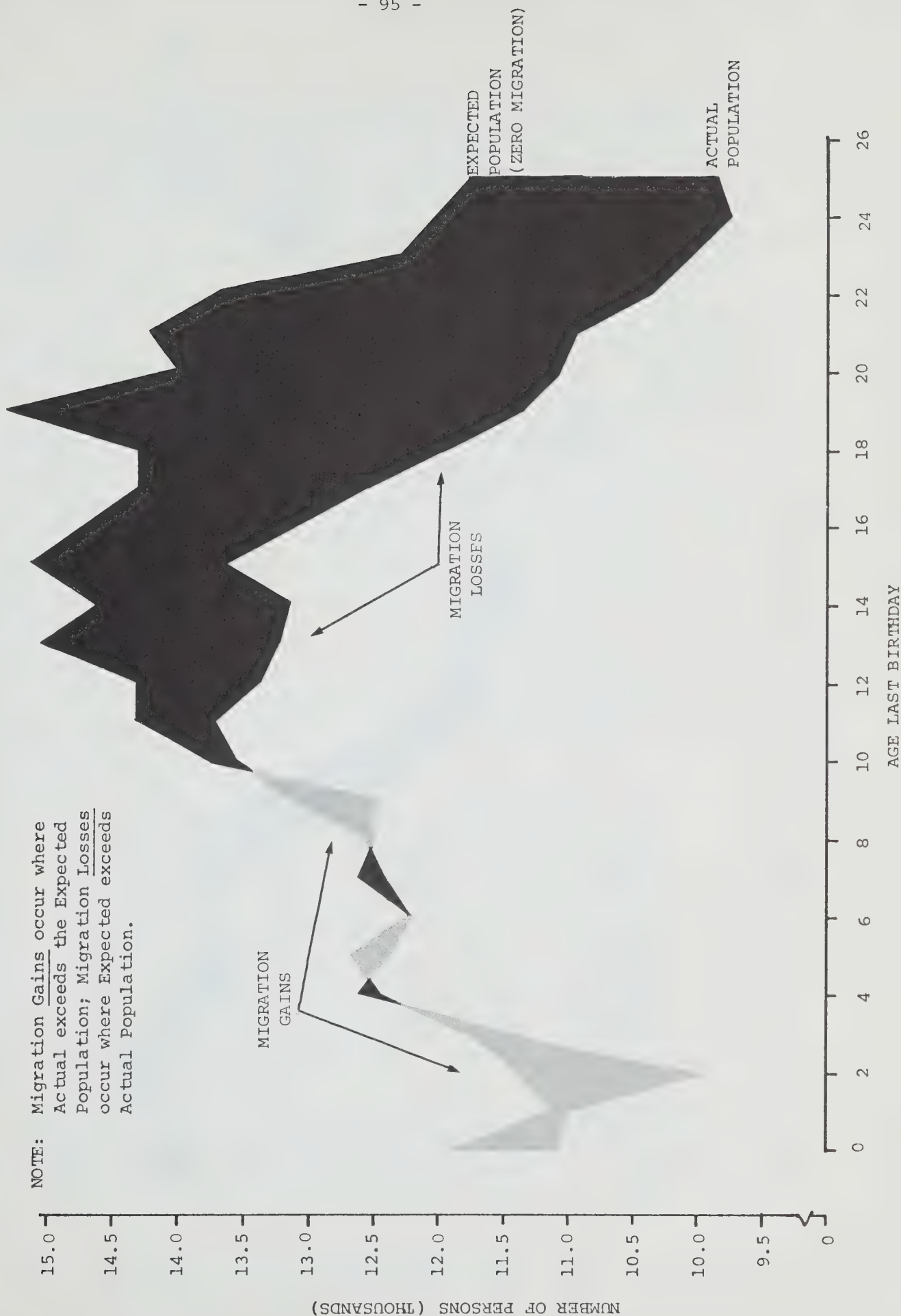
NORTH WEST TERRITORIES: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

NOTE: Migration Gains occur where Actual exceeds the Expected Population;
Migration Losses occur where Expected exceeds the Actual Population.



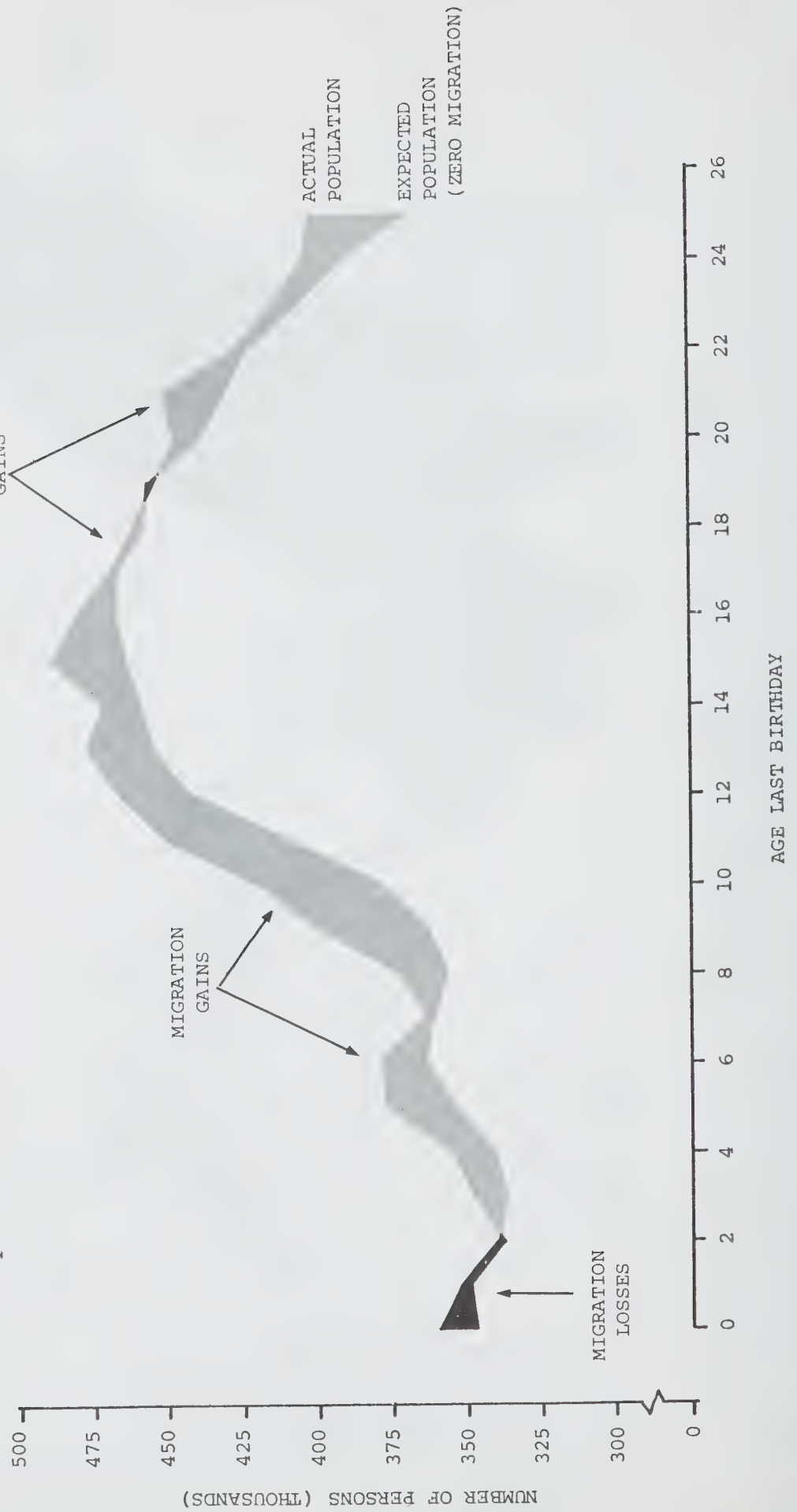
NEWFOUNDLAND: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

NOTE: Migration Gains occur where Actual exceeds the Expected Population; Migration Losses occur where Expected exceeds Actual Population.



CANADA: MIGRATION EFFECTS - 1976 (COMPARISON OF ACTUAL AND EXPECTED POPULATIONS)

NOTE: Migration Gains occur where Actual exceeds the Expected Population;
Migration Losses occur where Expected exceeds the Actual Population.



are plentiful, and seem to "come back home" to weather a recession. Thus, if and when the economy improves in Ontario, the traditional patterns of movement westward from the East may re-appear -- much to the discomfort of the education authorities in the Atlantic provinces, no doubt, who would be left with more empty classrooms and unemployed teachers.

A complication, unexpected by many, will soon arise, at least in international migration, because of the impending shortage of young workers arising from the drastic decreases of births in Canada. It will probably be fairly noticeable as early as 1982 and clearly evident to all by the 1990's. Just what this will mean for interprovincial migration may be debated, but our immigration policy is such that it will undoubtedly mean opening the gates wider to international migrants. Since all of the developed Western World will be affected in the same way as Canada, that is, they will experience a shortage of young workers at about the same time, some countries even more severely than Canada, it seems likely that the "pools" of workers available will be found only in the countries of relatively uncontrolled fertility, such as southern Asia, Black Africa, the Caribbean, Mexico and South America. Whether this will lead to racial misunderstanding and strife remains to be seen: it will be interesting to find out just how tolerant Canadians really are.

Fertility of Our People: the Baby Boom and the Baby Bust

As indicated in earlier sections, the number of women in the child-bearing age groups is directly related to the number of births, for very obvious reasons. The numbers of women in these special cohorts have been very large in recent years because of the earlier Baby Boom of the late 1940's and 1950's. But ever since 1960 the number of live births and the birth rates (however defined) have been in decline, and that decline has been so substantial that it has more than offset the effect of the very large increases in the number of potential parents.

From the peak of about 160,000 live births in 1960, the number has dropped fairly steadily (with exceptions in a few years) to slightly over 123,000

TABLE: 2.19
ONTARIO: 40 YEARS OF LIVE BIRTHS, 1940 TO 1980
PATTERNS OF ACTUAL AND CUMULATIVE GAINS AND LOSSES

| Twenty Years of Growth | | | | Twenty Years of Decline | | | |
|------------------------|--------------------|--------------------|---------------------|-------------------------|----------------------|--------------------|---------------------|
| Year | No. of Live Births | Increase Over 1940 | Cumulative Increase | Year | No. of Live Births | Decrease Over 1960 | Cumulative Decrease |
| 1940 | 68,524 | - | - | 1960 | 159,245 | - | - |
| 1941 | 72,262 | 3,738 | 3,738 | 1961 | 157,663 | 1,582 | 1,582 |
| 1942 | 78,192 | 9,668 | 13,406 | 1962 | 156,053 | 3,192 | 4,774 |
| 1943 | 81,173 | 12,649 | 26,055 | 1963 | 155,089 | 4,156 | 8,930 |
| 1944 | 78,090 | 9,566 | 35,621 | 1964 | 152,729 | 6,516 | 15,446 |
| 1945 | 78,974 | 10,450 | 46,071 | 1965 | 141,610 | 17,636 | 33,082 |
| 1946 | 97,446 | 28,922 | 74,993 | 1966 | 131,942 | 27,303 | 60,385 |
| 1947 | 108,853 | 40,329 | 115,322 | 1967 | 127,509 | 31,736 | 92,121 |
| 1948 | 104,195 | 35,671 | 105,993 | 1968 | 126,257 | 32,988 | 125,109 |
| 1949 | 106,601 | 38,077 | 189,070 | 1969 | 130,398 | 28,847 | 153,956 |
| 1950 | 108,708 | 40,184 | 229,254 | 1970 | 134,724 | 24,521 | 178,477 |
| 1951 | 114,827 | 46,303 | 275,557 | 1971 | 130,395 | 28,850 | 207,327 |
| 1952 | 123,891 | 55,367 | 330,924 | 1972 | 125,060 | 34,185 | 241,512 |
| 1953 | 129,771 | 61,247 | 392,171 | 1973 | 123,776 | 35,469 | 276,981 |
| 1954 | 136,261 | 67,737 | 459,908 | 1974 | 124,229 | 35,016 | 311,997 |
| 1955 | 139,554 | 71,030 | 530,938 | 1975 | 125,708 | 33,537 | 345,534 |
| 1956 | 143,516 | 74,992 | 605,930 | 1976 | 124,770 ¹ | 34,475 | 380,009 |
| 1957 | 150,920 | 82,396 | 688,326 | 1977 | 123,630 ¹ | 35,615 | 415,624 |
| 1958 | 152,637 | 84,113 | 772,439 | 1978 | 122,500 ² | 36,745 | 452,369 |
| 1959 | 157,124 | 88,600 | 861,039 | 1979 | 123,000 ² | 36,245 | 488,614 |
| 1960 | 159,245 | 90,721 | 951,760 | 1980 | 123,300 ² | 35,945 | 524,559 |

Source: Annual Reports of the Ontario Vital Statistics, Registrar General

¹ Preliminary

² Estimated

in 1977, a decline of 23.1%. The extraordinary pattern of live births from 1940 to 1960, and from 1960 to 1980, may be seen in Table 2.19. Observe that since 1960, we have lost more than half the cumulative gains in births made during the previous 20 years!

At the same time that these decreases in births occurred, the number of women in the age group 18-35 years increased by 62.3%, as determined from the censuses of 1961 and 1976. The increase in the number of women in the major child-bearing age group, i.e., 18 to 32 years, was even more dramatic, over 72.9% in 15 years.

A pictorial representation of the situation will be found in Charts 2.29 and 2.30, the first showing the estimated number of potential parents each year from 1959 to 2001, with the corresponding number of live births superimposed on it, and the second showing a rough index of fertility from which the number of live births from 1978 to 2001 was projected. An extraordinary situation indeed, is it not? There seems little indication that the trends will change direction; no Echo of the Baby Boom can yet be heard.

There was also a slight downward trend in infant mortality during the 1961-76 period, but the effect is relatively minor in comparison. The effect of number of births on school enrolment is much greater than that of migration and of deaths. Throughout the 1960's and 1970's, the size of the number of births per year was many times that of the number of children gained through international and interprovincial migration, which I refer to as "instant births" as far as Ontario is concerned. These births accounted for over 90% of the growth in elementary school enrolment in the 1950's and 1960's, and about 80% of that in secondary school enrolment.

The effects in the 1970's were equally noticeable, but really in reverse as far as births were concerned. In spite of a marked increase in the number of immigrant children in the early years of the 1970's, and a great expansion of kindergarten services by the expansion of senior kindergartens and particularly of junior kindergartens for the four-year-old children, and substantial increases in special education services, the change in the fertility rate was so dramatic (remember, a 73% increase in the number of potential mothers in the prime child-bearing age group matched

CHART 2.29

ONTARIO: 1959 TO 2001

FERTILITY TRENDS: THAT UNPRECEDENTED DECLINE

NOTE: THE REPRODUCTIVE RATIO USED HERE IS OF
 COURSE ONLY A FIRST APPROXIMATION TO A MORE
 VALID MEASURE OF THE FERTILITY OF A POPULATION.
 BUT IT DOES GIVE A REASONABLY ACCURATE AND EASILY
 UNDERSTOOD INDEX, SINCE IT COMPARES THE NUMBER
 OF LIVE BIRTHS IN ANY YEAR TO THE NUMBER OF
 POTENTIAL PARENTS IN THE MOST FERTILE AGE COHORT,
 THOSE AGED 18 TO 32 YEARS.

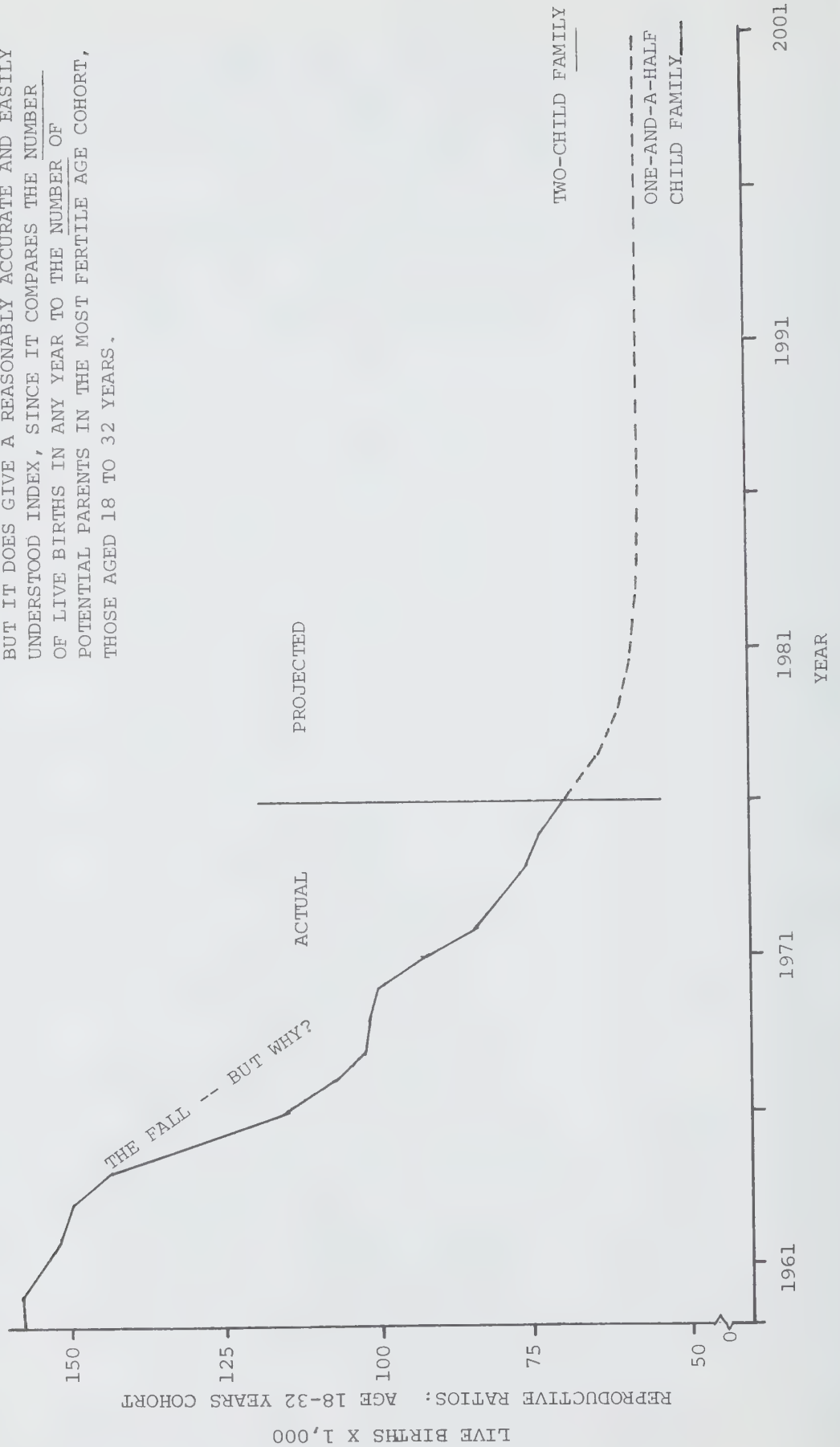
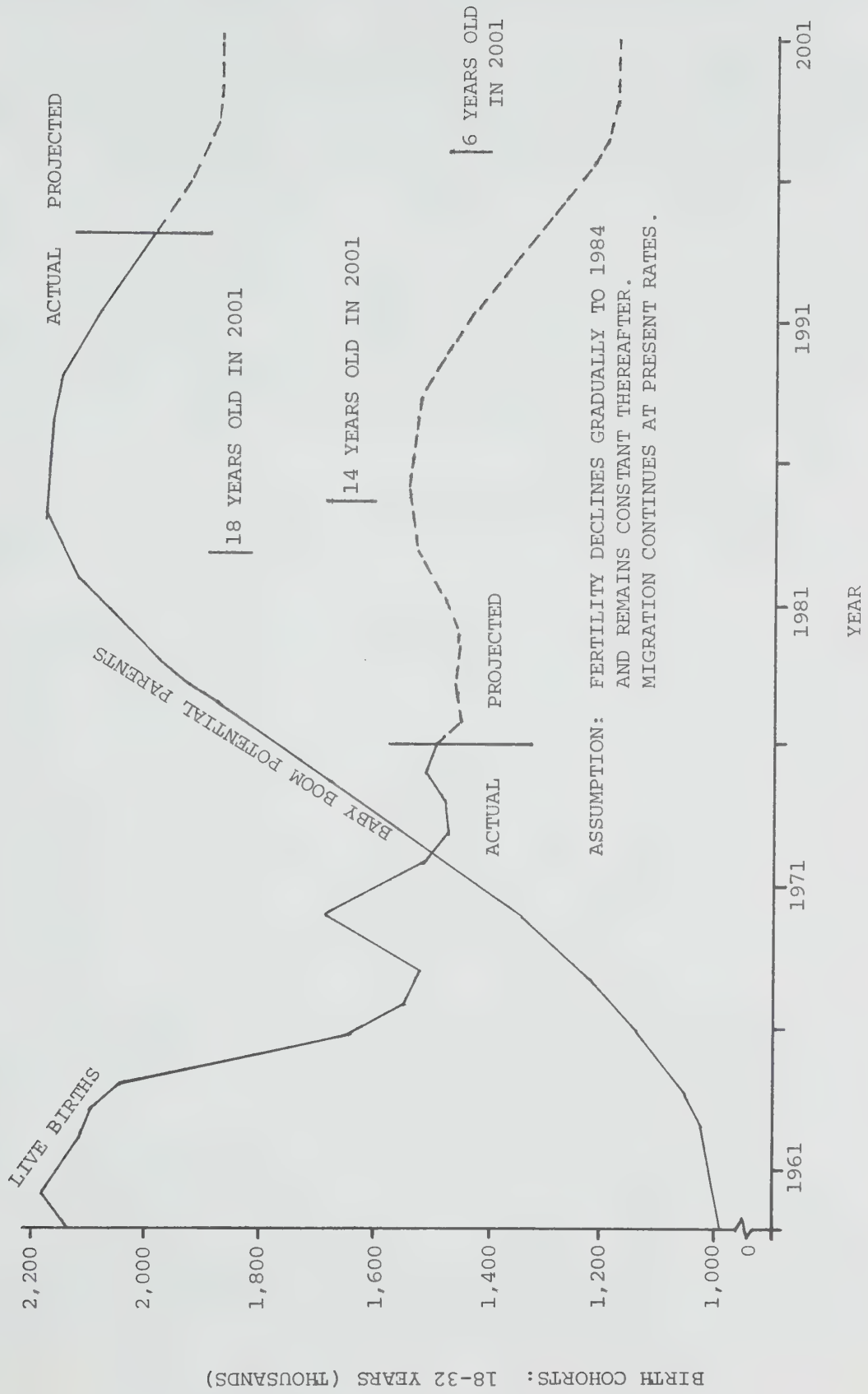


CHART 2.30

ONTARIO: 1959 TO 2001

FERTILITY TRENDS: THE BABY BOOM & THE BABY BUST



by a 23% decrease in the number of live births) that it caused an absolute reversal of enrolment in the elementary school sector. The change in total numbers began in 1971 although the decreases in the lower grades appeared much earlier. This decline will be reflected in the secondary school sector beginning about 1978 in general and will roll on into the post-secondary sector a few years later, appearing there in the early 1980's.

Based on the approximate fertility rates and the estimated "pools" of potential mothers and fathers, I projected the births up to 1986 and calculated for the census years 1981 and 1986 (using the 1976 mortality and migration rates) the number of persons of each year of age from under 1 to 25 years. (Time did not permit more refined methods to be used at this point, but we have commissioned such studies, based on computer models, and expect the results in March.)

Using the available data, we presented earlier in Table 2.12 the age distributions for 1971, 1976, 1981, and 1986, and in the final column an estimate of the gains and losses during the decade, from 1976 to 1986. These are indeed sobering. To illustrate the shift of losses since 1960, Charts 2.11 to 2.15 showed, in red, the losses between successive censuses 1961-1966, 1966-1971, 1971-1976, 1976-1981, and 1981-1986. Clearly, the 'creepint tide' has arrived, and will continue to eat holes in our school systems, and soon in our young labour force.

Recent policy changes at the national level reflect primarily economic forces and reinforce the trend to reduction in immigration and the change in the fertility pattern. Like the expansion effects produced by the larger number of babies born in the late 1940's and throughout the 1950's, the contraction effects caused by reduced immigration and lower fertility of the 1960's and 1970's will be automatically carried forward into the schools grade by grade, year by year, throughout the rest of the 1970's, and 1980's and the 1990's.

What is unknown is what will appear beyond the mid-1980's and the early years of the 1990's. Will this period follow the pattern of the past, with further reductions in migration to Ontario, in fertility and in school enrolment? Or will both migration and number of births increase, and consequently start a new wave of increases in school enrolment? Of course no

one knows, and the experts disagree vehemently, so perhaps our "guess" is as good as anyone else's.

In an attempt to provide some guidance in our search for answers to these crucial questions, which will determine in large part how we plan our future, let us look at the historical trends of fertility and try to decide just how stable they really are as a basis for projections into the future.

To begin with, consider the fertility patterns for specific ages and total fertility and gross reproduction rates for Ontario in the years 1926, 1930, 1940, 1950, 1960, 1965, 1970 and 1975 as given in Table 2.20. The changes are quite marked and consistent, with due allowance for the Baby Boom of the late 1940's and 1950's, and there is certainly no sign of a reversal of the trend in the 1970's (births dropped even lower, by the way, in 1976 and 1977 in Ontario). The figures for married women (given by Statistics Canada in a special table) show clearly the delay in family formation.

Consequently, a further gradual decline, followed at best by a leveling-off in fertility in perhaps a decade, does seem to be a reasonable projection of the future. This conclusion is supported by an examination of actual and expected family size over the years. Studies indicate that not only are many of the babies unwanted (and unplanned for) by today's parents (as high as 50% in one study of the 1960's in Great Britain), but expected family size is steadily decreasing, often favouring no children at all or at most one or two. If this is merely a "fashion", it could change -- and quickly -- but this does seem at the present to be a rather unlikely event.

As for actual family size in Ontario, we show in Table 2.21 the percentage of families with a given number of children for the selected years 1961, 1966, and 1971 (the 1976 values are not yet available). Note the decrease in the size of families between the years 1966 and 1971 where there has been a noticeable change. For example, the number of families with no children, and the number of families with only one or two children, have increased substantially, certainly as contrasted with the number of families with four and five or more children, which shows a decided reduction. Moreover, the year 1971 is really only near the beginning of this recent phase,

TABLE 2.20

AGE-SPECIFIC FERTILITY RATES, ONTARIO FOR SELECTED YEARS

1926 to 1975

| Year | Age Specific Fertility Rate ^a | | | | | Total Fertility Rate ^b | Gross Reproduction Rate ^c | General Fertility Rate ^d |
|------|------------------------------------------|-------|-------|-------|-------|-----------------------------------|--------------------------------------|-------------------------------------|
| | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | |
| 1926 | 30.4 | 121.1 | 148.8 | 125.6 | 82.3 | 34.3 | 3.4 | 81.2 |
| 1930 | 35.8 | 133.6 | 149.2 | 120.4 | 77.0 | 30.9 | 2.8 | 81.6 |
| 1940 | 35.5 | 125.1 | 128.5 | 96.2 | 56.5 | 19.4 | 1.9 | 69.9 |
| 1950 | 55.1 | 176.8 | 179.7 | 120.6 | 67.8 | 20.4 | 1.8 | 96.3 |
| 1960 | 70.9 | 241.2 | 217.1 | 134.7 | 71.7 | 21.6 | 1.5 | 110.8 |
| 1965 | 58.3 | 192.9 | 180.6 | 114.5 | 59.3 | 17.8 | 1.5 | 89.0 |
| 1970 | 49.4 | 148.5 | 152.2 | 83.3 | 36.4 | 9.8 | 0.6 | 72.8 |
| 1975 | 36.5 | 112.3 | 128.2 | 64.5 | 21.2 | 4.4 | 0.3 | 59.8 |

Notes: ^aBirth rate per 1,000 women in the respective age period.

^bSum of female age-specific fertility rates.

^cNumber of live daughters that would be born to a hypothetical female birth cohort of 1,000 women if subjected to current age-specific fertility rates, and assuming that mortality before age 50 is zero.

^dBirth rate per 1,000 women 15-49 years.

Source: Statistics Canada, Vital Statistics, Vol. 1, Cat. No. 84-204

TABLE 2.21
PERCENTAGE OF FAMILIES WITH GIVEN NUMBER OF CHILDREN
IN CANADA AND ONTARIO FOR SELECTED YEARS

| | CANADA | | | ONTARIO | | |
|------|--------|------|------|---------|------|------|
| | 1961 | 1966 | 1971 | 1961 | 1966 | 1971 |
| None | 29.0 | 28.9 | 30.5 | 31.5 | 30.4 | 31.7 |
| 1 | 20.2 | 19.8 | 20.6 | 21.3 | 20.2 | 21.1 |
| 2 | 20.6 | 20.4 | 21.2 | 21.8 | 21.7 | 22.2 |
| 3 | 13.4 | 13.8 | 13.4 | 13.1 | 13.9 | 13.3 |
| 4 | 7.5 | 8.0 | 7.2 | 6.6 | 7.3 | 6.6 |
| 5+ | 8.9 | 9.1 | 7.1 | 5.7 | 6.5 | 5.2 |

Source: Dominion Bureau of Statistics, 1961 Census of Canada, Estimates of Families in Canada, 1968 Catalogue No. 99-526. 1971 Figures computed from data in Statistics Canada, 1971 Census of Canada, Families; Children in Families, Catalogue No. 93-715, Vol. II, Part 2 (Bulletin 2.2-3)

and the 1976 and 1977 figures (when available) will undoubtedly reveal an even more dramatic change. The years 1961 and 1966 are, of course, heavily influenced by that Baby Boom.

So many negative factors are operating together that I find it extremely difficult to be optimistic about the possibility of any change in the fertility pattern and trend. Consider the following incomplete list, as samples:

- (a) The economy is sluggish and the "experts" do not seem to know how to get it moving again.
- (b) The Canadian dollar has been allowed to plunge through the floor and no one seems to know whether to salvage it.
- (c) Unemployment, particularly of young men and women, remains painfully high.
- (d) Inflation stays high, and threatens to again burst into the two-digit levels.
- (e) Divorces are increasing steadily in number.
- (f) The number of therapeutic abortions, which certainly seem to have become an accepted part of our way of life, increases steadily.
- (g) Marriages are increasing in number, but over the past 15 years or so there has existed a very high negative relationship between the number of marriages in Ontario and the number of live births.
- (h) Even the ratio of ex-nuptial births seems to be stabilizing, probably because of the dissemination of more knowledge about family planning among the younger age groups, where this phenomenon tends to predominate.

In our discussions with various groups, considerable interest has been demonstrated in the increases and decreases of population and declines in fertility rates for different ethnic groups, religious classifications and mother tongue categories. Information about these factors can be secured from special Statistics Canada studies based on the census results. Some very revealing and useful results are available from the 1971 census, but of course not as yet for the 1976 census.

The English-speaking and French-speaking populations of Ontario are naturally of special interest and concern. It seems clear that, especially for the younger age groups, the French-speaking people of Ontario exhibit the lower fertility. As will be noted in the next chapter, this is reflected in the patterns of school enrolment declines. From the 1976 census we can find, for the ages under 1 to 25 years in which we are specially interested, the number of Anglophones and Francophones as compared with the total. Observe from the data that whereas for the total population we have 170,160 at age 15 years but only 118,605 at age 2 years, a decrease of 30.3%, the corresponding decrease for the Francophones was 44.6% in Prescott, for example, a substantial difference.

As for the other results, the fertility patterns of the various religious groups are converging, with the notable exception of a few of the smaller denominations. Also, contrary to popular belief, foreign-born women do not have higher fertility rates than Canadian-born women, but the American Indians and the Innuits still exhibit very high fertility rates as compared with the rest of us (which is the basis of my wry comments that, if they keep on at this rate they'll get all Canada back by default in due course).

As indicated earlier, we have special population projections being prepared for us, under contract, by Statistics Canada, using their computer model with the 1976 census data as a base and employing three sets of fertility and migration assumptions.* These will extend to the year 2001, and naturally we are eagerly awaiting the results. They will be published by us in the form of an Information Bulletin as soon as they are received, and will be distributed widely for use throughout the province, so that the projections for the whole province may be generally available.

In addition, we have contracted with the TEIGA research group to prepare special population projections and school enrolment projections, in which they used revised fertility rates (adjusted downwards to reflect changes). Only the preliminary data and report are available at this time, but again the final report will be published and distributed widely as soon as it is available (or it will be in the Statistical Appendix to this report, as well as the Statistics Canada figures, if ready in time). These new

*We have asked also for a special compilation assuming zero migration.

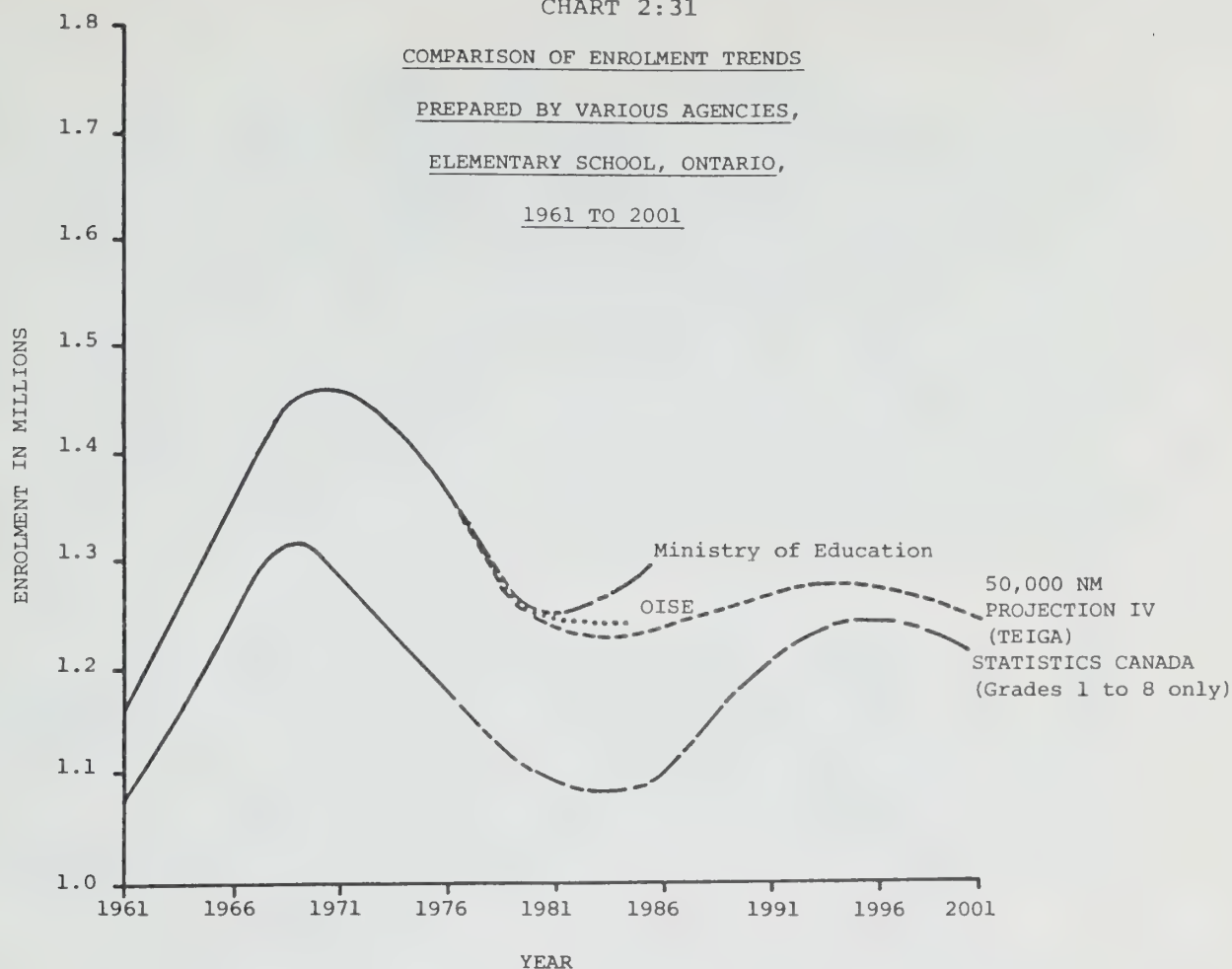
preliminary projections of TEIGA will differ rather greatly from those they prepared earlier, based on the 1971 census data and higher fertility rates, since even small decreases in fertility rates have a very substantial effect in light of the huge number of potential mothers and fathers.

It is this change in the fertility rates, tempered somewhat by higher or lower migration, which greatly affects the long term school enrolment yield. Obviously, if a lower net migration assumption is used as well as a lower fertility rate, then a very low minimum estimate of live births and school enrolment is obtained. Because of the required "time lag" between elementary and secondary school enrolment, the secondary school enrolment will not reach the bottom of the "valley of decline" until the last few years of the 1980's, and for several reasons (e.g., short time span of five grades) the rate and even the amount of decline in secondary school enrolments is likely to be very much more severe than that encountered in the elementary system. In the secondary schools special education has already been expanded, the pupil-teacher ratio seems to have hit bottom and lately has been increasing and obviously there is no chance to build in an expansion like that of junior and senior kindergartens -- at least not that I can visualize, although there is always, I suppose, the possibility of educating "senior citizens".

In the opinion of the TEIGA demographers, their preliminary Projection IV is recommended as the likely enrolment trend. However, in the opinion of the OISE projection group, with which I agree, this is probably somewhat high and the trend is more likely to be somewhere between Projections IV and V, for which see Charts 2.31 and 2.32, and probably uncomfortably close to the latter.

Underlying Projection IV is the assumption that total fertility rates will decline from 1.84 births per female in 1975 to about 1.6 and then level off for the rest of this century. The elementary school enrolment based upon this particular population projection would drop to a level of 1.23 million by 1981, then rise slowly and almost imperceptibly to 1.27 million in the early 1990's before it starts to drop steadily once again. As a basis for comparison, note that the total elementary school enrolment in 1976 was 1,360,000, so we would not recover even to that low level.

CHART 2:31



NOTE: NM - Net Migration Per Year

The TEIGA elementary school projection shown here was obtained by summing all the county figures. The same procedure was also applied to the OISE projection. However, due to changes in municipal boundaries OISE has left out two counties (Durham and Northumberland) in the elementary school system and five counties (Durham, Northumberland, Peterborough, Simcoe and Victoria) in the secondary school system. To obtain the full provincial picture, an estimate was made for the left out counties and then added on to the partial total. In the case of OISE and TEIGA, a separate overall provincial projection was also made. Comparing this separate provincial total with the one obtained by the county aggregation, it was discovered that the former estimate was about 20,000 and about 50,000 higher in the case of TEIGA and OISE respectively within the elementary school system. If the separate provincial estimate were plotted instead of the county aggregate, it would reduce much more the difference between the Ministry of Education projection done on a province-wide basis and that of the OISE and TEIGA estimates.

In the secondary school system the difference in the projections produced by aggregating the counties and by a separate provincial estimate was only marginal.

Social and Economic Data

Central Statistical Services

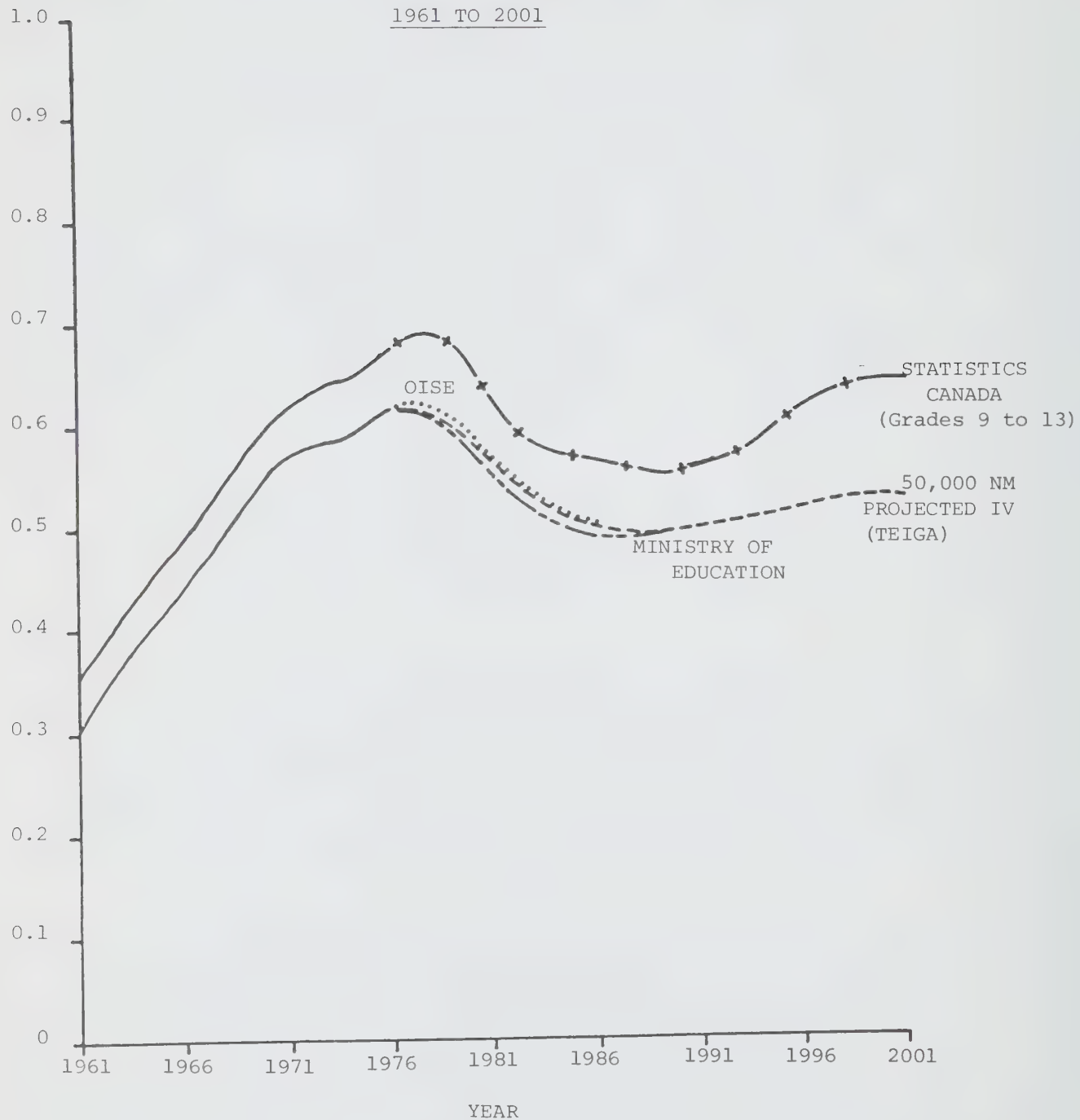
Ministry of Treasury, Economics

and Intergovernmental Affairs, 1978

COMPARISON OF ENROLMENT TRENDS

PREPARED BY VARIOUS AGENCIES,

SECONDARY SCHOOL, ONTARIO



NOTE: NM - Net Migration Per Year

See footnote in Figure 11

Social and Economic Data
Central Statistical Services
Ministry of Treasury, Economics
and Intergovernmental Affairs, 1978

Under that same Projection IV, secondary school enrolment would decrease from 613,000 in 1976 to about 500,000 in 1986. Then the trend would pick up slowly and by 2001 the secondary school enrolment would rise (using the term lightly) to perhaps 520,000 before beginning to fall again.

Basing their calculations on the relationship between the population of certain age groups and the total elementary and secondary school enrolment, the TEIGA research group comments on the situation in the various counties and districts. They show total enrolment only, for elementary and for secondary separately, but not broken down by grade, or into public and separate.

Again using TEIGA's Projection IV, virtually every county and district in Ontario would experience sustained enrolment declines. There are a few areas, like Peel and Dufferin, which would be marginally affected and remain growth areas, but there are some areas, such as Huron, Cochrane, Renfrew, Prescott and Russell, where the decline would be very substantial. Even if there is the enrolment increase projected after 1981, it would be concentrated in fewer than a dozen areas in central Ontario.

As a matter of fact, it is clear that if the increases in certain counties are greater than expected, it would have to be at the expense of the areas of projected marginal growth. For example, if the increases for the regional municipalities of Peel, York and Halton are excluded from the provincial total, then only a very small marginal increase could be found anywhere else in the whole province. Obviously therefore, the entire eastern, northern and southwestern parts of our province are expected to experience widespread and sustained elementary school enrolment declines for the balance of this century.

The projected pattern of secondary school enrolment declines is naturally very similar, but of course it is pushed forward in time. Apart from four or five locations, which are very distinctive and well-known as growth areas in this province, the initially abrupt but then steady and sustained secondary school enrolment declines would continue in every other part of Ontario to the year 2001. Incidentally, the four main locations for possible moderate and continued growth are Peel, York, Carleton and Dufferin counties.

Since the TEIGA set of preliminary enrolment projections are the only up-to-date ones available at present, we have chosen to present them here as part of the discussion on population, and restrict the scope of the next chapter to forecasts up to the year 1986 by using projections from OISE, the Ministry of Education and Statistics Canada. For the most part, I have relied upon the OISE projections to 1986 (which have proved to be quite accurate in the past) as shown in the Statistical Appendix, supplemented by those from the Ministry of Education where needed. We still want detailed figures by grade and age, for public and separate schools, and for the county and urban boards. Some major difficulties were encountered in the projections for northern Ontario, especially for the small isolated school boards where economic conditions are so unstable, and for many of these areas any projections beyond five years or so would be in large part rather meaningless. Projections by board for northern Ontario are being prepared for my Commission, however, and will be distributed in April.

At this point I wish to stress that, at best, population and school enrolment forecasting is a tricky, chancy business, and demographers are certainly not noted for infallibility.

I can speak from experience and with feeling: from time to time some of my earlier projections (and comments) are brought forward to keep me humble. As the late Premier Leslie M. Frost used to comment wryly about master plans, the trouble with projections of this sort is that people insist upon being human and resist any form of programming (fortunately, too, I may say).

In projecting population factors, especially fertility trends, can social attitudes give us indications of what changes we are likely to see? Current and prospective economic conditions do yield indications of what the future is likely to be. Under the preliminary Projections IV and V of the TEIGA group, or of my own approximations presented earlier, there is simply no question but that there would be (I maintain that there will be anyway) considerable change in the age structure of the population of Ontario between the 1976 and 2001 censuses. The only issue, really, is how reasonable the assumptions are from which these specific data are derived.

Changes in fertility could occur fairly quickly, and without advance

warning, and in fact a few demographers suggest that the present fertility trend will reverse itself. Of course, some of them have been suggesting this for a number of years, as witness the cyclical theory advanced in Great Britain. But there is no sign that such a change in direction of the fertility trend is likely to occur in the immediate future.

Because of the large number of potential parents in the prime child-bearing ages today (we are near the peak in Ontario), even a relatively small change in fertility rates would result in very large increases in the number of live births, to numbers exceeding the 1960 maximum. Nevertheless, the very effective birth control measures we now have available (including therapeutic abortions, as an alternative, or last resort, so to speak), combined with the social attitudes and prevalent expectations of family size, the very substantial participation of women in the labour force (the rates are creeping up towards equality with those for the men), and attitudes towards standards of living and the 20 to 25 years commitment inherent in having a child, are all factors which certainly do not suggest that our fertility rates are likely to increase very much unless some Herculean measures are taken.

An interesting question: in our scale of values and priorities, just how much is a baby worth, to the parents and to the state? Not very much, I'm afraid, and in my most pessimistic moods I even claim that a baby is viewed as a liability, not as an asset.

Decrease in fertility is not a new phenomenon. It has been found in other generations, and many other cultures have disappeared during the long history of the human race. This decrease is today found extensively in many other countries, in fact throughout all the countries of the Industrialized Western World. Only in the developing countries do we encounter uncontrolled fertility.

Reports of the demographic trends in Western Europe, which many demographers claim is establishing the norm for the whole of the Industrialized Western World, note that the fertility rates in Germany and Switzerland, and probably Sweden, have already dropped below the level TEIGA assumed as the lowest fertility rate for Ontario in making their projections. The European demographers speak freely of the average-size family of 1.5 children as

being the norm for the future. This point of view is supported by recent Canadian studies, my own and others, which point out that in our country the real reproductive period for women is contracting to encompass the ages of only 18-32 years, and possibly soon 23-30 years, rather than the traditional 15-49 year period. The lowering of the upper limit has been going on for many years, and postponement of the initial formation of a family is widely accepted by both men and women. In other words, the parents are spacing their children very differently now, and this shrinkage of the reproductive age period will have the effect of reducing the fertility rate.

In our own province, too, a fairly substantial portion of the females from the post-war Baby Boom are now passing through their most fertile reproductive period, and there is still no evidence of any increase in the number of births. Soon the "pool" of potential mothers will start to diminish rapidly, now that the peak of the Baby Boom girls have reached the age of 18 years.

As far as school enrolment projections are concerned, the main conclusion is that, no matter what marginal adjustments are made to the population data, the contraction conditions for our school systems will likely be severe and prolonged at least until the 1990's.

Questions and Issues

1. How can we secure more information about expected size of families? We need the results of demographic studies of this critical factor, because a small change in the fertility rate has a large effect upon the number of births and therefore subsequently upon all sectors of society.
2. What levels of migration will be set in future by the federal and provincial governments, in light of the impending shortage of young workers? Will our immigration policy permit the entry of large numbers from the countries with uncontrolled fertility, the only source of supply now?
3. Will the interprovincial migration patterns return to the traditional ones, which made Ontario a considerable net gainer of population? Will the free flow across provincial boundaries be permitted in future, or will some form of barriers (e.g., language) be erected?
4. Will intraprovincial migration continue, characterized by a flight from the cities and farms to the suburban areas, or will such movements be controlled by the province?

5. Our population is aging, and will continue to do so for some time. What will the effects be on all aspects of our social and economic life (including the psychological effect of a middle-aged conservative-minded majority of taxpayers and voters)?
6. Do we face a continual contraction of our economic system, as a result of the impending contraction of total population and great shifts in age composition? What will be the psychological and emotional effects of this?

Chapter 3

School Enrolment in Ontario: Past, Present, and Future

As in the other chapters, I have not burdened the text with the detailed complex tables; these are placed in the appendix, or in the separate Statistical Appendix, for those readers who are concerned with cross-classifications by age, sex and grade. The tables and the maps and graphs I have used deal almost exclusively with total enrolment by type of school, with some exceptions where attention needed to be drawn to special or unusual features of the growth or decline patterns.

I have also throughout paid particular attention to the distribution of gains and losses across the province, by counties and urban centres for the most part, and for the districts of the vast territory which constitutes what we call northern Ontario, from the eastern boundary with Quebec, across the hundreds of miles of the central portion, to the far-distant territories which have boundaries with Manitoba and the United States.

The chapter has been divided into two sections, partly for convenience in presentation, but mainly to aid the reader in comprehending the changes which have and are taking place. These sections will be referred to as the Past and the Present, and the Present and the Future, with 1976 as the dividing line. Up to that year we deal with the actual recorded enrolments. Beyond it we move into the unknown and consider in varying degrees, with less assurance as the time span lengthens, conjecture, projections and forecasts. A similar approach was used in the last chapter, in the study of population and population trends and forecasts, so the approach will not seem novel to the reader.

In looking ahead into the uncertain future, I have restricted myself to the decade 1976 to 1986 for the most part, with a few forays (as in the previous chapter) far ahead to the end of this century. As explained earlier, the basic data we need to complete the sketch

to the year 2001 are not available at the time of writing, and the deadline of February 28th for the submission of this interim report makes it impossible to wait any longer for them.

In regard to school enrolment forecasts, practically all the children and youth we are concerned with in our projections have already been born. Large numbers in fact are already enrolled in our schools and can be counted. The unknown variables are in-migration and out-migration from and to other provinces and countries, but this factor is not of major consequence over such a short time span, relative to the live births. As for the latter variable, observe that those born in 1977 will be only nine years old in 1986, presumably enrolled in grade 3 in one of our school systems, and we know today their numbers and those of their older friends and playmates.*

We do have to estimate the number of children in junior and senior kindergartens, and grades 1 and 2, up to 1986, but if we stick to total enrolment and avoid grade estimates, the errors in our projections are bound to be slight. Unless, of course, we insist on making the radical assumption that fertility rates are going to leap skyward in an exponential curve immediately, which I have no intention of doing. The OISE educational planning research team of Dr. Watson and Mr. Quazi agree fully with me on this assessment of the trends in fertility for the next five years at least.

I have used the OISE projections in the school enrolment estimates to 1986 mainly because they seem to me to be the most plausible. The figures for 1985 and 1986 may be high, but not I think by very much, and certainly they avoid the pitfall of the assumption of any loud echo of the original Baby Boom. They admit at most (as I would, too) that there may be a slight whisper to be heard around 1983 if economic conditions improve and attitudes to family size change. If not evident by then I, regretfully, would conclude that the echo has been lost forever.

*As an unanticipated reflection of these strange, modern days, I offer the information that I had originally written "brothers and sisters", but erased it because not many will ever have such close relatives.

Another advantage of using the period 1976 to 1986 is that we know the elementary school enrolment by the end of that period will have stabilized, probably as a relatively gentle decline, and the initial sudden, sharp decline in secondary school enrolment will be over and a period of relative stability or gentle decline will have been entered. This will be a reflection of the dramatic drop in live births from 159,245 in 1960 to 126,257 in 1968 (a 20.7% plummet in only eight years), which was followed by a brief rally to 134,724 in 1970 and then a much gentler decline to the low of 123,630 in 1977.

Frankly, I do not foresee any more wild plunges in the fertility rates during the rest of this century. At worst we will have a smooth slide to a new low of 1.5 children for the average family. That is what European demographers are forecasting, and we in Canada are nearly there now. My assessment of the family planning techniques we employ today (contraceptives plus therapeutic abortion) is that we have entered the "blessed state", as some call it, of controlled fertility and further advances will be in the form only of refinements or more acceptable techniques. For a change, perhaps women scientists will develop a set of techniques which the men will be forced to employ, instead of the reverse (the disappearance of the last vestige of a male dominated society, I presume).

Before we turn to the numbers, charts and maps, I wish to state now that I am completely confident that we can overcome the difficulties facing us and solve satisfactorily the problems our schools face and will continue to face. We must examine the situation carefully, assess the various measures and alternatives available and deliberately plan a course of action best suited to our community if we are to avoid panic and possible disaster. The going will be rough at times and we will have to make some major changes. But I see no prospect of radical or revolutionary ones being needed.

Mainly we will have to sort out our values and priorities and exercise our ingenuity and creativity to devise new means, within a mostly unaltered system, to maintain the highest quality of education

possible for the few children we do have and to deal sensibly and humanely with the personal (personnel) problems which must arise. We must also use enough common sense* to hold expenditures within limits so as to prevent bankruptcy or a taxpayers revolt. Our school system will become smaller, but what of it? We started with a small one in the 1940's and managed to expand it to meet the wild demands of the 1950's and 1960's; now we can wind it down a bit to fit the more sober and leaner days of the 1970's and beyond.

I remain an incurable optimist, and with good reason to have faith in my fellow human beings: in my lifetime we survived the bloodbaths of World War I, the influenza epidemic which killed off even more people, the boom and bust of the crazy 1920's which shattered the financial world, the grim days of unemployment and privation of the Great Depression, the horrors of World War II including the purges and the attempts at genocide, and the terrors of the atomic bomb and threats of nuclear war, then thrived through the boom times of the post-war years to build a better, or at least a more comfortable (to a homesteader's son), civilization. We can cope with what faces us if we get down to business and act instead of cry, even though our whole society is going to be rocked by the impact of the impending population changes, of which the present school crisis is but the tip of the iceberg.

Most of us cannot resist a challenge like this because it snaps us out of the humdrum everyday world and presents us with an opportunity to do something. So let's have a look at the brute, right up close enough to see the colour of its eyes!

* We used the phrase "horse sense" in my youth, but I suppose few of the present generation would understand, or even know what a horse is, off the TV screen.

The Past and the Present

To gain a proper perspective on how far we have come in education in this province, one must start with the Roaring Twenties, just before the Big Bang of the Crash of 1929. So the figures in Tables 3.1 and 3.2 and Charts 3.1 and 3.2 show total enrolment for elementary and secondary schools for the 50-year period 1926 to 1976 for elementary schools (public and separate), and from 1951 to 1976 for secondary schools. It is difficult to get comparable figures for the secondary schools in those earlier years, partly, I believe, because there was some confusion about terms and classification of schools during those years.

The elementary school graphs highlight features of two major periods: the time of lack of any growth at all during the years of the Depression and the early part of the war, and the time of wild expansion after 1951 in both elementary and secondary schools followed by the decline in elementary schools between 1971 and 1976. As for that fantastic secondary school growth curve, remember that two factors were operating together: there was a flood of students from the Baby Boom and an extraordinarily successful development of the concept of secondary education for all, which had a multiplier effect on the growth curve. During those years, incidentally, we also pushed the idea of equality of education opportunity into the post-secondary field, but that is another story and outside my terms of reference.

Note that the secondary school enrolment had just about peaked by 1976, as expected from the population projections presented in the previous chapter. With compulsory attendance and general acceptance of some form of secondary education for all, the curves of school enrolment now (as Dr. Zoltan Zsigmond reminds us in his publications from Statistics Canada) run parallel to the corresponding population curves, except for the very senior secondary school grades where attendance is voluntary after age 16 (at least in theory) and participation rates vary from year to year (in relation to economic conditions in the province, apparently).

TABLE 3.1
ELEMENTARY SCHOOL ENROLMENT IN ONTARIO - TOTAL
1926 - 1976

| Year | PUBLIC | | | RC SEPARATE | | | TOTAL SEPARATE | | |
|-------------------|-----------------|-------------------|--------------|-----------------|-------------------|------------|-----------------|-------------------|-------------|
| | Grade Enrolment | Special Education | Total Public | Grade Enrolment | Special Education | Total RCSS | Grade Enrolment | Special Education | Grand Total |
| 1926 ¹ | | | 494,652 | | | 95,049 | | | 589,701 |
| 1927 | | | 502,384 | | | 98,248 | | | 600,632 |
| 1928 | | | 508,407 | | | 99,496 | | | 607,903 |
| 1929 ² | | | 511,840 | | | 103,148 | | | 614,988 |
| 1930 | | | 468,521 | | | 91,925 | | | 560,446 |
| 1931 | | | 474,010 | | | 95,974 | | | 569,984 |
| 1932 | | | 481,414 | | | 99,198 | | | 580,612 |
| 1933 | | | 483,331 | | | 101,552 | | | 584,883 |
| 1934 | | | 482,514 | | | 101,513 | | | 584,027 |
| 1935 | 460,689 | 3,497 | 464,186 | 101,124 | 467 | 101,591 | 561,813 | 3,964 | 565,777 |
| 1936 | 457,735 | 3,050 | 460,785 | 100,603 | 549 | 101,152 | 558,338 | 3,599 | 561,937 |
| 1937 | 451,957 | 3,408 | 455,365 | 100,412 | 598 | 101,010 | 552,369 | 4,006 | 556,375 |
| 1938 | 450,577 | 3,932 | 454,509 | 101,633 | 872 | 102,505 | 552,210 | 4,804 | 557,014 |
| 1939 | 449,304 | 3,878 | 453,182 | 103,719 | 747 | 104,466 | 553,023 | 4,625 | 557,648 |
| 1940 | 437,238 | 3,905 | 441,143 | 101,443 | 737 | 102,180 | 538,681 | 4,642 | 543,323 |
| 1941 | 429,738 | 3,859 | 433,597 | 99,601 | 716 | 100,317 | 529,339 | 4,575 | 533,914 |
| 1942 | 422,804 | 3,379 | 426,183 | 98,547 | 711 | 99,258 | 521,351 | 4,090 | 525,441 |
| 1943 | 421,502 | 3,837 | 425,339 | 101,592 | 590 | 102,182 | 523,094 | 4,427 | 527,521 |
| 1944 | 432,268 | 3,916 | 436,184 | 102,506 | 673 | 103,179 | 534,774 | 4,589 | 539,363 |
| 1945 | 430,213 | 4,212 | 434,425 | 103,641 | 644 | 104,285 | 533,854 | 4,856 | 538,710 |
| 1946 | 432,348 | 4,361 | 436,709 | 107,685 | 613 | 108,298 | 540,033 | 4,974 | 545,007 |
| 1947 | 437,306 | 4,027 | 441,333 | 108,281 | 596 | 108,877 | 545,587 | 4,623 | 550,210 |
| 1948 | 448,499 | 4,617 | 453,116 | 110,788 | 625 | 111,413 | 559,287 | 5,242 | 564,529 |
| 1949 | 464,965 | 4,552 | 469,517 | 114,960 | 547 | 115,507 | 579,925 | 5,099 | 585,024 |
| 1950 | 489,160 | 4,372 | 493,532 | 122,097 | 590 | 122,687 | 611,257 | 4,962 | 616,219 |
| 1951 | 503,731 | 4,633 | 508,364 | 126,634 | 619 | 127,253 | 630,365 | 5,252 | 635,617 |
| 1952 | 540,179 | 4,304 | 544,483 | 133,541 | 666 | 134,207 | 673,630 | 4,970 | 678,600 |
| 1953 | 583,505 | 4,839 | 588,344 | 146,010 | 658 | 146,668 | 729,515 | 5,497 | 735,012 |
| 1954 | 615,631 | 4,815 | 620,446 | 162,082 | 656 | 162,738 | 777,713 | 5,471 | 783,184 |
| 1955 | 639,164 | 4,797 | 643,961 | 173,635 | 563 | 174,198 | 812,799 | 5,360 | 818,159 |
| 1956 | 670,481 | 5,765 | 676,246 | 186,719 | 649 | 187,368 | 857,200 | 6,414 | 863,614 |
| 1957 | 699,654 | 6,665 | 706,319 | 204,899 | 678 | 205,577 | 904,553 | 7,343 | 911,896 |
| 1958 | 739,372 | 7,864 | 747,236 | 223,221 | 660 | 223,881 | 962,593 | 8,524 | 971,117 |
| 1959 | 775,565 | 8,602 | 784,167 | 242,688 | 743 | 243,431 | 1,018,253 | 9,345 | 1,027,598 |
| 1960 | 808,825 | 9,055 | 817,880 | 262,917 | 852 | 263,769 | 1,071,742 | 9,907 | 1,081,649 |
| 1961 | 833,071 | 10,666 | 843,737 | 281,540 | 1,111 | 282,651 | 1,114,611 | 11,777 | 1,126,388 |
| 1962 | 850,048 | 11,667 | 861,715 | 299,951 | 1,387 | 301,338 | 1,149,999 | 13,054 | 1,163,053 |
| 1963 | 867,460 | 12,738 | 880,198 | 315,201 | 1,630 | 316,831 | 1,182,661 | 14,368 | 1,197,029 |
| 1964 | 888,775 | 13,055 | 901,830 | 329,236 | 2,098 | 331,334 | 1,218,011 | 15,153 | 1,233,164 |
| 1965 | 910,857 | 14,211 | 925,068 | 350,290 | 3,115 | 353,405 | 1,261,147 | 17,326 | 1,278,473 |
| 1966 ³ | 933,577 | 15,797 | 949,374 | 366,757 | 3,912 | 370,669 | 1,300,334 | 19,709 | 1,320,043 |
| 1967 | 959,654 | 17,246 | 976,900 | 383,040 | 4,931 | 387,971 | 1,342,694 | 22,177 | 1,364,871 |
| 1968 | 981,726 | 20,829 | 1,002,555 | 395,911 | 6,586 | 402,497 | 1,377,637 | 27,415 | 1,405,052 |
| 1969 | 997,922 | 23,754 | 1,021,676 | 401,748 | 7,166 | 408,914 | 1,399,670 | 30,920 | 1,430,590 |
| 1970 | 1,020,948 | 21,613 | 1,042,561 | 407,069 | 6,487 | 413,556 | 1,428,017 | 28,100 | 1,456,117 |
| 1971 | 1,022,857 | 24,198 | 1,047,055 | 411,533 | 6,900 | 418,433 | 1,434,390 | 31,098 | 1,465,488 |
| 1972 | 1,010,464 | 24,239 | 1,034,703 | 415,571 | 6,566 | 422,137 | 1,426,035 | 30,805 | 1,456,840 |
| 1973 | 997,112 | 25,823 | 1,022,935 | 415,300 | 6,866 | 422,166 | 1,412,412 | 32,689 | 1,445,101 |
| 1974 | 972,430 | 26,238 | 998,668 | 418,030 | 6,187 | 424,217 | 1,390,460 | 32,425 | 1,422,885 |
| 1975 | N.A. | - | 977,545 | N.A. | - | 427,294 | N.A. | - | 1,404,839 |
| 1976 | 934,600 | 27,025 | 961,625 | 421,479 | 6,374 | 427,853 | 1,356,079 | 33,399 | 1,389,478 |
| 1977 | 909,940 | 27,352 | 937,292 | 415,505 | 7,288 | 422,793 | 1,325,445 | 34,640 | 1,360,085 |

¹ December enrolment, age as of September 1926 to 1929

² Last school day in May enrolment 1929 to 1965

³ September 30 enrolment 1966 to 1976

Source: Annual Reports of the Minister of Education of Ontario.

TABLE 3.2

FULL-TIME SECONDARY SCHOOL ENROLMENT IN ONTARIO, 1951-1976

| YEAR | INTERMEDIATE YEAR 1 | YEAR 2 | SENIOR YEAR 3 | Year 4 | HONOUR YEAR 5 | SPECIAL EDUCATION | TOTAL SECONDARY |
|-------------------|------------------------|---------|------------------|---------|------------------|----------------------|--------------------|
| 1951 | 40,085 | 35,384 | 23,833 | 18,300 | 8,827 | 1,127 | 133,556 |
| 1952 | 49,549 | 36,946 | 25,321 | 19,245 | 8,975 | 1,055 | 141,091 |
| 1953 | 51,288 | 39,468 | 26,252 | 19,685 | 9,818 | 1,038 | 147,549 |
| 1954 | 55,887 | 42,262 | 29,133 | 21,713 | 9,981 | 1,190 | 160,166 |
| 1955 | 61,911 | 45,251 | 31,489 | 23,846 | 10,799 | 1,266 | 174,562 |
| 1956 | 66,354 | 48,640 | 32,830 | 25,041 | 11,487 | 1,253 | 185,605 |
| 1957 | 72,063 | 53,654 | 37,177 | 26,769 | 12,547 | 1,315 | 203,525 |
| 1958 | 74,604 | 59,109 | 41,718 | 31,058 | 14,278 | 1,308 | 222,075 |
| 1959 | 76,598 | 60,829 | 45,552 | 34,792 | 16,267 | 3,538 | 237,576 |
| 1960 | 88,607 | 64,783 | 47,833 | 38,697 | 18,447 | 4,408 | 262,775 |
| 1961 | 100,988 | 76,290 | 52,681 | 42,266 | 21,482 | 5,470 | 299,177 |
| 1962 | 103,866 | 86,012 | 61,733 | 46,776 | 23,750 | 9,441 | 331,578 |
| 1963 | 103,526 | 90,817 | 70,302 | 55,731 | 26,262 | 17,572 | 364,210 |
| 1964 | 105,899 | 93,453 | 77,922 | 64,418 | 32,770 | 20,839 | 395,301 |
| 1965 | 110,997 | 96,299 | 80,710 | 67,282 | 37,692 | 25,758 | 418,738 |
| 1966 | 117,582 | 100,710 | 83,963 | 70,625 | 35,007 | 28,139 | 436,026 |
| 1967 | 124,067 | 108,789 | 88,988 | 76,214 | 36,472 | 30,206 | 463,736 |
| 1968 | 131,082 | 117,426 | 98,585 | 82,371 | 40,087 | 31,257 | 500,807 |
| 1969 | 135,420 | 122,181 | 105,836 | 90,956 | 43,569 | 32,717 | 530,679 |
| 1970 ¹ | 153,826 | 139,961 | 116,116 | 98,837 | 48,173 | - | 556,913 |
| 1971 | 157,433 | 141,939 | 121,750 | 101,733 | 51,665 | - | 574,520 |
| 1972 | 162,781 | 143,459 | 125,417 | 100,644 | 50,712 | - | 583,013 |
| 1973 | 165,235 | 143,939 | 126,596 | 99,854 | 50,101 | - | 585,725 |
| 1974 | 161,775 | 145,651 | 127,541 | 103,609 | 54,141 | - | 589,650 |
| 1975 | 163,004 | 148,141 | 131,692 | 108,182 | 54,141 | - | 605,160 |
| 1976 | 162,319 | 148,633 | 135,241 | 111,349 | 55,513 | - | 613,055 |

¹ Beginning in 1970, enrolment in all secondary school courses was distributed in accordance with a wider definition of grade. Students were reported by grade or by years of schooling beyond kindergarten or by credits or courses completed. In 1972, those with 0-6 credits were reported in grade 9, those with 7-13 credits in grade 10, those with 14-20 credits in grade 11, those with 21-26 credits in grade 12. Candidates registered for honour graduation diploma courses were reported in grade 13.

CHART 3.1

ELEMENTARY SCHOOL ENROLMENT IN ONTARIO, 1926-1976

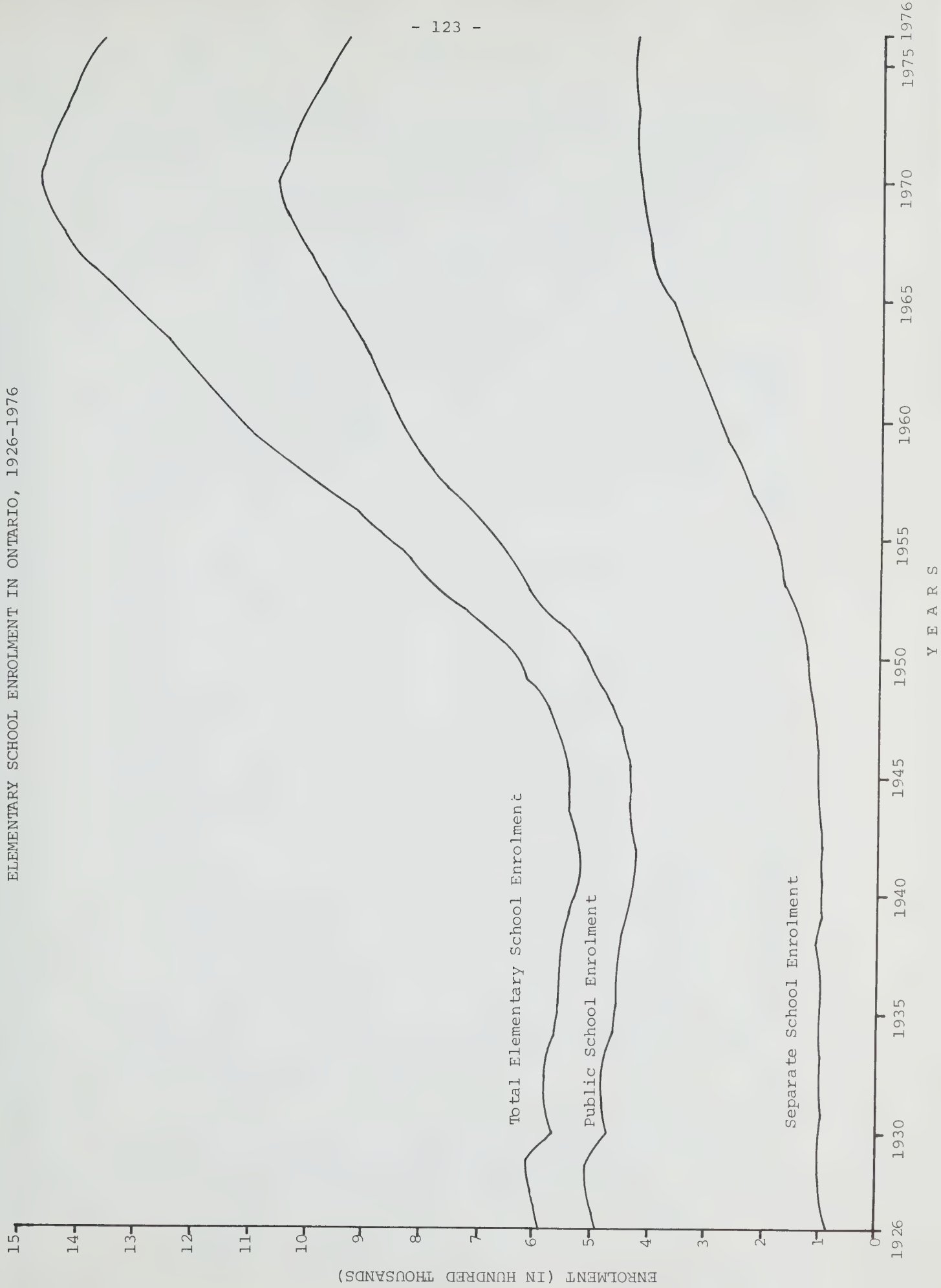
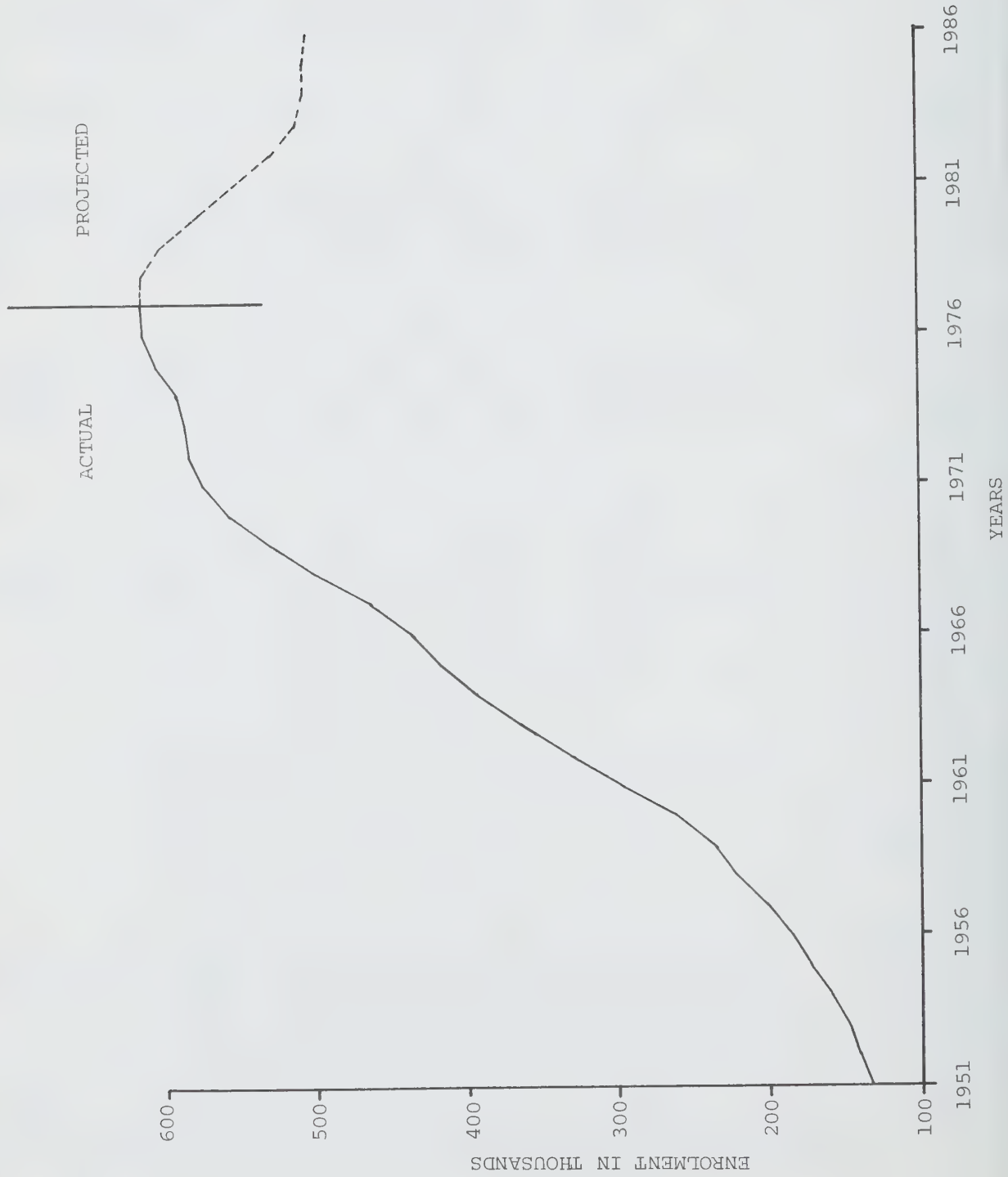


CHART 3.2

TOTAL ACTUAL AND PROJECTED SECONDARY SCHOOL ENROLMENT IN ONTARIO, 1951-86



If we have satisfactory population projections it is a relatively simple task to project total school enrolment. To prepare projections for the school systems by grade or age, however, is a more complex affair, and the demographer changes to the grade-cohort, or age-cohort, technique. The process can become even more complex at the secondary school level if one attempts to project enrolment for the major subjects as well, as the OISE research group is now attempting to do (utilizing a sophisticated and complex computer model).

Having had this quick overview of the general story of the past and present, let us zero in on the period from 1971 to 1976 for the elementary schools to illustrate one of the major problems educators are having to convince the politicians (other than those familiar with the education portfolio) and the general public that the story of the decline in enrolment "is for real".

The major source of the difficulty is the fact that the total population of Ontario (see the population growth map, Chart 2.2) is going ahead merrily on its way, increasing year by year at a steady and quite respectable rate -- as is the case for the rest of Canada, with the notable exceptions of very rapid increases in Alberta and British Columbia, and what seems to be a change recently in Quebec (see Table 2.3). Of course, growth is not evenly spread across Ontario. Some areas are growing wildly while others (principally some of the largest cities and northern Ontario) have shown losses between censuses of 1971 and 1976. But with total numbers steadily increasing how in the world could we be suffering losses in the elementary schools?

The fact is that very substantial losses were experienced by public schools but not by separate schools in most part of Ontario between 1971 and 1976, as the maps show (see Charts 2.5 and 2.6). A few areas referred to earlier, enjoyed and are still enjoying, if one may so describe it, substantial increases in elementary school enrolment since 1971, notably places like Peel, Dufferin and some others in central Ontario.

But even these "lucky" areas may have their own peculiar brand of problem. For example, south Peel is experiencing declines and

northern Peel rapid expansion; southern Simcoe is expanding, but northern Simcoe is contracting. So one finds partially or wholly empty schools in one part and the children needing new schools in the other part. (We have never built completely portable school buildings and sites -- only portable classrooms.) The problems cross jurisdictional boundaries near many of the large cities, with empty classrooms and schools in the core part of the city and children needing classrooms just across the boundary line. The Ottawa-Carleton situation is a classical example of the resulting dilemma, not yet resolved there.

Because of the special importance of the group, and the keen interest in their problems special tables and map-graphs have been prepared for the Franco-Ontarian population and distribution of enrolment in elementary and secondary schools. Perhaps because their fertility rates seem lower than the average for the province, the declines started earlier and have proved to be more severe to date (Tables 3.3 to 3.6 and Charts 3.3 to 3.7).

We have also included, for the period up to 1976, the best sets of figures we could find for private schools, schools for children of the armed forces and enrolment data for our native Indian children (Tables 3.7 to 3.9). For most of these special groups, because the numbers were so small, we have made no attempt at this stage to provide projections up to 1986. However, we did prepare projections up to 1986 for the schools of the Franco-Ontarian community.

In addition to the map-graphs, Tables 3.10 to 3.15 give total enrolment figures for 1971 to 1976 for the counties and urban boards, and also by boards for northern Ontario. They show the data for public, separate, total elementary and secondary where applicable.

It is worth noting that the elementary school boards have, with very, very few exceptions, coped adequately with the heavy declines experienced to date, and seem fully confident that they can handle the years of lesser difficulties which face them in the future. So far they have, although there have been some bad spots, confrontations, noisy meetings and the like. All this is understandable, of course, because we have lived so long with the elementary school as the local

TABLE 3.3
ENROLMENT IN FRENCH LANGUAGE PUBLIC SCHOOLS IN ONTARIO
1966 TO 1977

| ACADEMIC YEAR BEGINNING | K (JR. & SR.) | GRADES | | | | | | | | | | SP. ED. | TOTAL |
|-------------------------------|------------------|--------|-----|-----|-----|-----|-----|-----|-----|---|----|---------|-------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| 1966 | 269 | 257 | 248 | 294 | 252 | 250 | 254 | 304 | 253 | - | - | 74 | 2,455 |
| 1967 | 220 | 274 | 289 | 247 | 282 | 289 | 237 | 255 | 288 | - | - | 78 | 2,459 |
| 1968 | 237 | 245 | 272 | 258 | 239 | 266 | 271 | 261 | 230 | - | - | 57 | 2,336 |
| 1969 | 241 | 283 | 276 | 256 | 221 | 225 | 252 | 274 | 275 | - | - | 51 | 2,354 |
| 1970 | 214 | 248 | 260 | 229 | 250 | 235 | 216 | 253 | 256 | - | - | 75 | 2,236 |
| 1971 | 165 | 214 | 239 | 227 | 219 | 252 | 228 | 218 | 241 | - | - | 71 | 2,074 |
| 1972 | 165 | 174 | 212 | 226 | 225 | 213 | 254 | 227 | 207 | - | - | 58 | 2,961 |
| 1973 | 223 | 214 | 197 | 225 | 241 | 251 | 215 | 264 | 215 | - | - | 56 | 2,103 |
| 1974 | 343 | 314 | 267 | 226 | 285 | 244 | 257 | 234 | 246 | - | - | - | 2,418 |
| 1975 | 341 | 246 | 230 | 244 | 208 | 248 | 252 | 271 | 219 | - | - | 40 | 2,299 |
| 1976 | 358 | 258 | 232 | 215 | 228 | 205 | 237 | 260 | 253 | - | - | 43 | 2,289 |
| 1977 | 378 | 309 | 282 | 262 | 219 | 233 | 217 | 247 | 250 | - | - | 38 | 2,435 |

Source: Annual Reports of the Minister of Education of Ontario

TABLE 3.4
ENROLMENT IN FRENCH LANGUAGE ROMAN CATHOLIC SEPARATE SCHOOLS IN TORONTO
1966 TO 1977

| ACADEMIC YEAR BEGINNING | GRADES | | | | | | | | | | TOTAL | | |
|-------------------------------|------------------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|--------|
| | K (JR. & SR.) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | 10 | SP.ED. |
| 1966 | 8,920 | 11,314 | 10,228 | 9,927 | 9,754 | 9,266 | 8,782 | 8,277 | 7,431 | 2,960 | 2,787 | 1,125 | 90,771 |
| 1967 | 9,137 | 10,687 | 10,579 | 9,819 | 9,793 | 9,696 | 8,969 | 8,766 | 8,155 | 2,844 | 2,277 | 1,423 | 92,145 |
| 1968 | 8,965 | 10,376 | 9,965 | 10,252 | 9,549 | 9,505 | 9,197 | 8,697 | 8,175 | 916 | 735 | 1,526 | 87,858 |
| 1969 | 9,211 | 10,026 | 10,042 | 9,984 | 10,214 | 9,493 | 9,652 | 8,917 | 8,498 | 395 | 309 | 1,302 | 88,043 |
| 1970 | 8,625 | 9,850 | 9,709 | 9,912 | 9,791 | 9,952 | 9,429 | 9,357 | 8,878 | 137 | 147 | 2,202 | 87,989 |
| 1971 | 8,276 | 9,103 | 9,483 | 9,507 | 9,593 | 9,565 | 9,680 | 9,301 | 8,942 | 155 | 139 | 1,678 | 85,422 |
| 1972 | 9,518 | 7,536 | 8,735 | 9,208 | 9,194 | 9,363 | 9,232 | 9,393 | 8,777 | 149 | 143 | 2,030 | 83,278 |
| 1973 | 9,826 | 7,175 | 7,365 | 8,616 | 9,128 | 9,081 | 9,187 | 9,079 | 9,095 | 162 | 145 | 1,643 | 80,502 |
| 1974 | 10,817 | 6,975 | 7,044 | 7,365 | 8,650 | 9,171 | 9,101 | 9,439 | 8,879 | 194 | 129 | - | 77,764 |
| 1975 | 11,150 | 7,039 | 6,596 | 6,693 | 7,097 | 8,365 | 8,751 | 8,646 | 8,623 | 247 | 149 | 1,769 | 75,125 |
| 1976 | 11,075 | 7,065 | 6,654 | 6,549 | 6,561 | 7,051 | 8,136 | 8,564 | 8,205 | 387 | 192 | 1,861 | 72,300 |
| 1977 | 10,967 | 7,211 | 6,739 | 6,583 | 6,459 | 6,541 | 6,978 | 8,064 | 8,279 | 397 | 279 | 1,525 | 70,022 |

Source: Annual Reports of the Minister of Education of Ontario

TABLE 3.5
ENROLMENT IN FRENCH LANGUAGE ELEMENTARY SCHOOLS IN ONTARIO
1966 TO 1977

| ACADEMIC YEAR BEGINNING | GRADES | | | | | | | | | | | | TOTAL |
|-------------------------------|------------------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|--------|--------|
| | K (JR. & SR.) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | SP.ED. | |
| 1966 | 9,189 | 11,571 | 10,476 | 10,221 | 10,006 | 9,516 | 9,036 | 8,581 | 7,684 | 2,960 | 2,787 | 1,199 | 93,226 |
| 1967 | 9,357 | 10,961 | 10,868 | 10,066 | 10,075 | 9,985 | 9,206 | 9,021 | 8,443 | 2,844 | 2,277 | 1,501 | 94,604 |
| 1968 | 9,202 | 10,621 | 10,237 | 10,510 | 9,788 | 9,771 | 9,468 | 8,959 | 8,405 | 916 | 735 | 1,583 | 90,194 |
| 1969 | 9,452 | 10,309 | 10,318 | 10,240 | 10,435 | 9,718 | 9,904 | 9,191 | 8,773 | 395 | 309 | 1,353 | 90,397 |
| 1970 | 8,839 | 10,098 | 9,969 | 10,141 | 10,041 | 10,187 | 9,645 | 9,610 | 9,134 | 137 | 147 | 2,277 | 90,225 |
| 1971 | 8,441 | 9,317 | 9,722 | 9,734 | 9,812 | 9,817 | 9,908 | 9,519 | 9,183 | 155 | 139 | 1,749 | 87,496 |
| 1972 | 9,683 | 7,710 | 8,947 | 9,434 | 9,419 | 9,576 | 9,486 | 9,620 | 8,984 | 149 | 143 | 2,088 | 85,239 |
| 1973 | 10,049 | 7,389 | 7,562 | 8,841 | 9,369 | 9,332 | 9,402 | 9,343 | 9,310 | 164 | 145 | 1,699 | 82,605 |
| 1974 | 11,160 | 7,289 | 7,311 | 7,591 | 8,935 | 9,415 | 9,358 | 9,673 | 9,125 | 196 | 129 | - | 80,182 |
| 1975 | 11,491 | 7,285 | 6,826 | 6,937 | 7,305 | 8,613 | 9,003 | 8,917 | 8,842 | 247 | 149 | 1,809 | 77,424 |
| 1976 | 11,433 | 7,323 | 6,886 | 6,764 | 6,789 | 7,256 | 8,373 | 8,824 | 8,458 | 387 | 192 | 1,904 | 74,589 |
| 1977 | 11,345 | 7,520 | 7,021 | 6,845 | 6,678 | 6,774 | 7,195 | 8,311 | 8,529 | 397 | 279 | 1,563 | 72,457 |

Source: Annual Reports of the Minister of Education of Ontario

TABLE 3.6
ENROLMENT IN FRENCH LANGUAGE SECONDARY SCHOOLS IN ONTARIO
1969 - 1977

| ACADEMIC YEAR BEGINNING | GRADES | | | | TOTAL |
|-------------------------------|--------|-------|-------|-------|--------|
| | 9 | 10 | 11 | 12 | 13 |
| 1969 | 7,181 | 5,832 | 4,082 | 3,325 | 1,170 |
| 1970 | 7,977 | 6,693 | 5,085 | 3,771 | 1,686 |
| 1971 | 8,770 | 7,326 | 5,608 | 4,449 | 1,665 |
| 1972 | 9,045 | 7,888 | 6,201 | 4,759 | 1,990 |
| 1973 | 8,807 | 7,788 | 6,679 | 5,033 | 1,936 |
| 1974 | 9,005 | 8,061 | 6,644 | 5,334 | 1,862 |
| 1975 | 8,704 | 8,300 | 6,874 | 5,612 | 1,902 |
| 1976 | 8,590 | 8,105 | 7,110 | 5,740 | 1,965 |
| 1977 | 8,209 | 7,823 | 6,852 | 5,898 | 1,841 |
| | | | | | 21,590 |
| | | | | | 25,212 |
| | | | | | 28,018 |
| | | | | | 29,883 |
| | | | | | 30,243 |
| | | | | | 30,906 |
| | | | | | 31,392 |
| | | | | | 31,510 |
| | | | | | 30,623 |

Source: Annual Reports of the Minister of Education of Ontario

PERCENTAGE DISTRIBUTION OF FRENCH SPEAKING POPULATION, 1971 & 1976

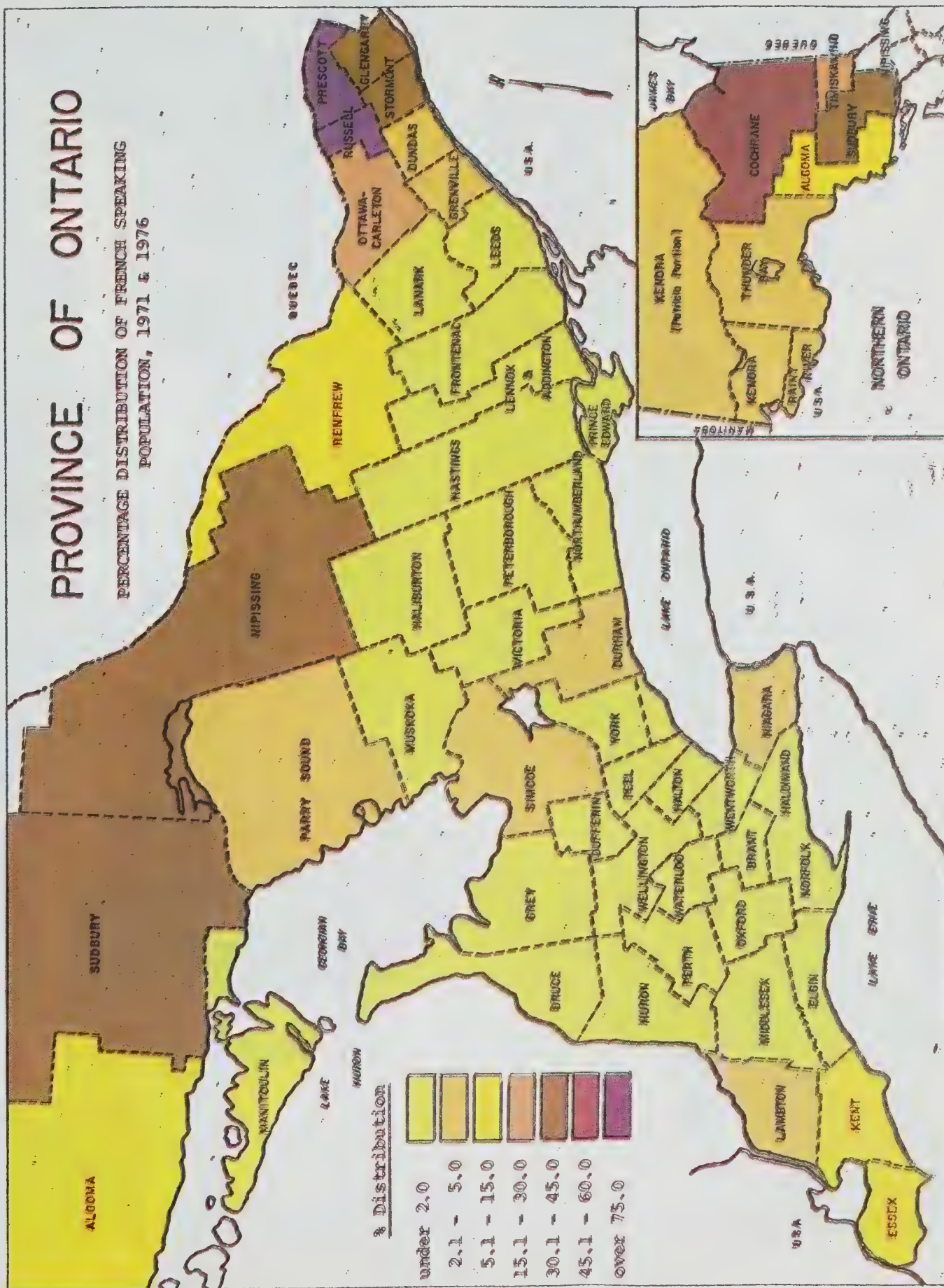


Chart 3.4

PROVINCE OF ONTARIO

GROWTH OR DECLINE OF FRENCH SPEAKING POPULATION,
1971-1976

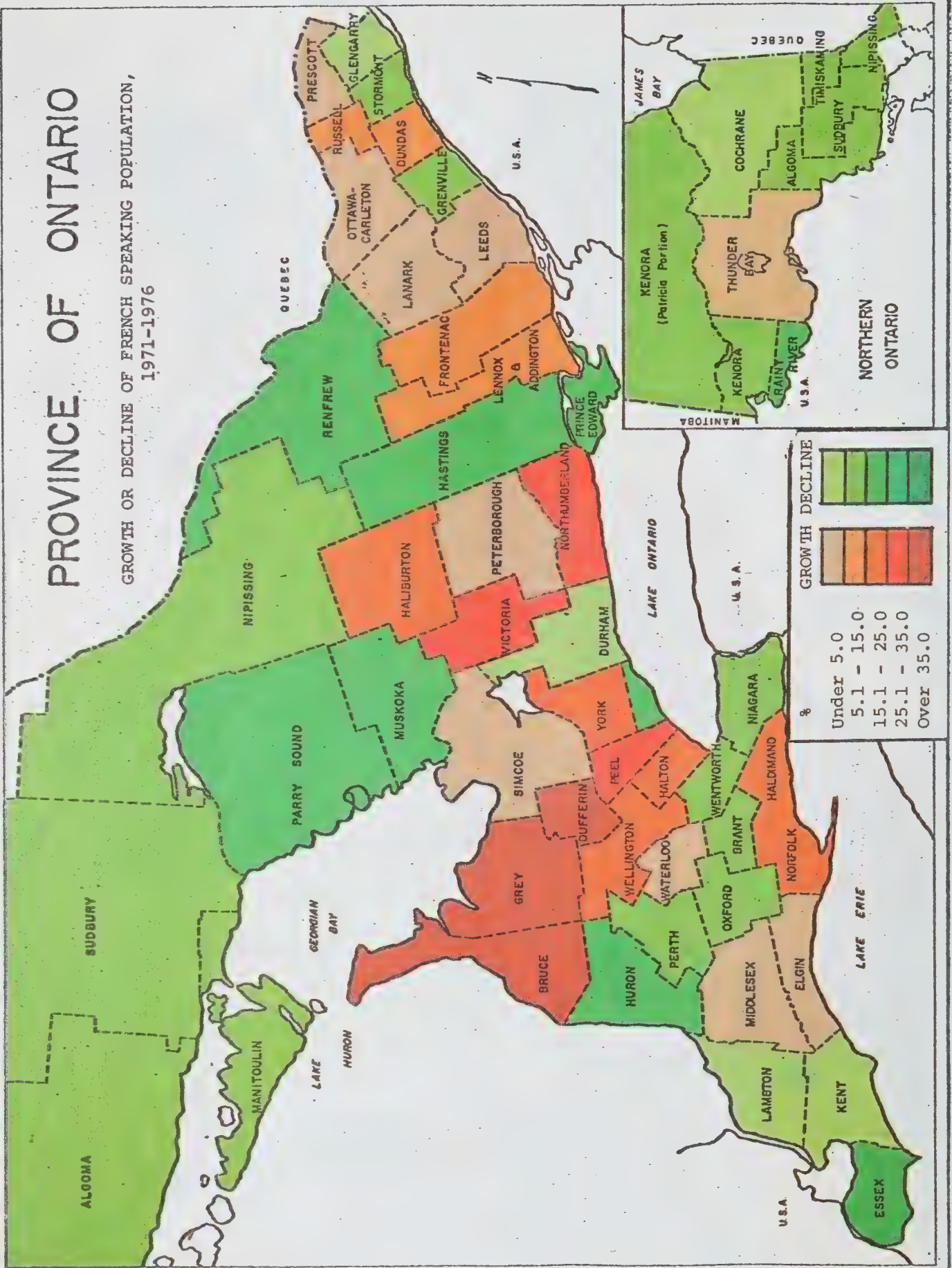
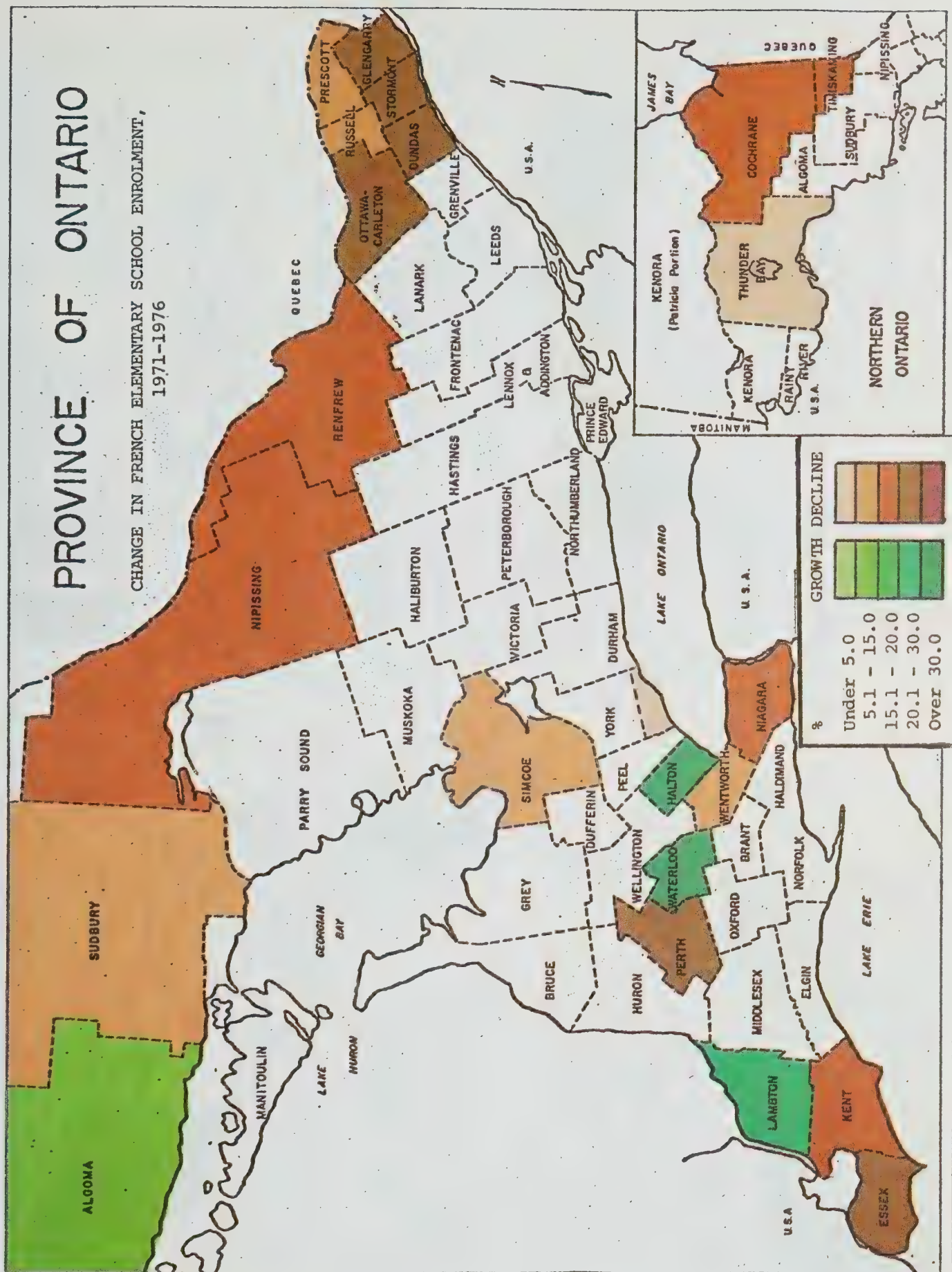


Chart 3.5



CHANGE IN FRENCH SECONDARY SCHOOL ENROLMENTS,
1971-1976

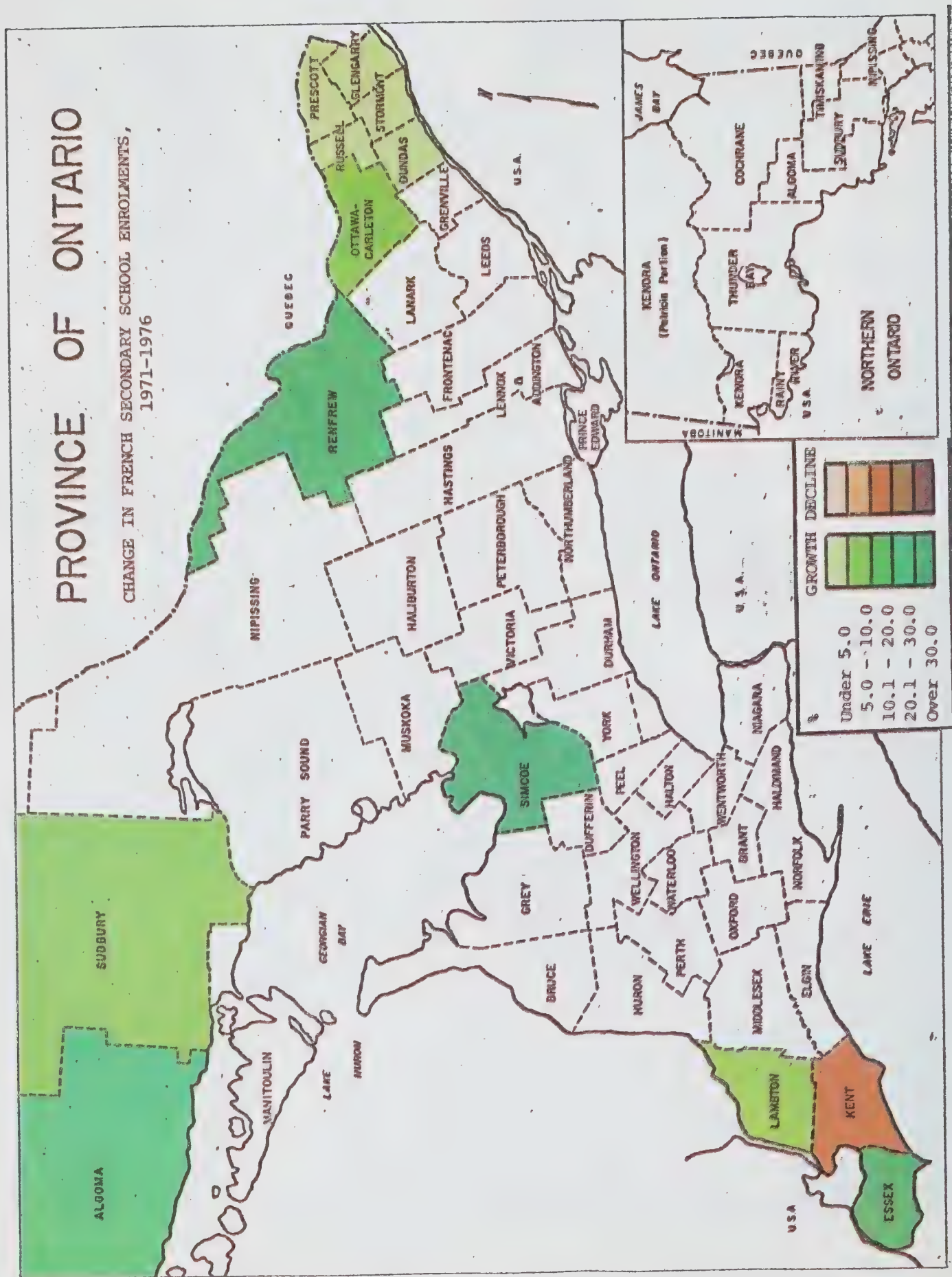


CHART 3.7
ONTARIO: ENROLMENT IN SCHOOLS ATTENDED BY FRENCH-SPEAKING PUPILS

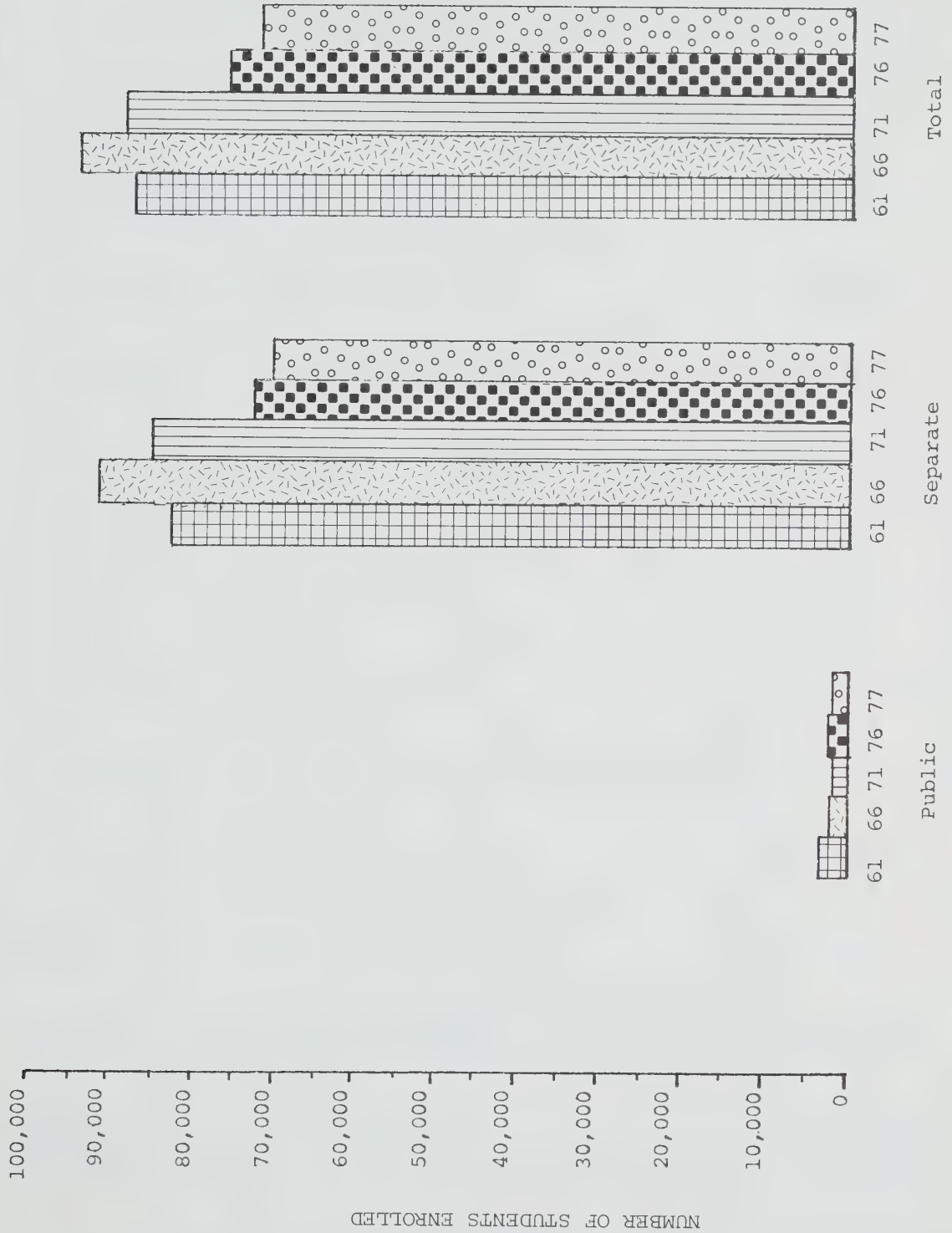


TABLE 3.7

PRIVATE SCHOOL ENROLMENT IN ONTARIO, 1926-1976

| ACADEMIC YEAR BEGINNING | NURSERY OR JR. KNDGR. | KINDER- GARTEN | G R A D E S | | | | | | | | | | | | | AUXIL. | TOTAL |
|-------------------------------|-----------------------------|-------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|--------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | |
| 1926 | - | 43 | 167 | 142 | 113 | 142 | 197 | 220 | 258 | 359 | 785 | 644 | 701 | 472 | - | 307 | 4,550 |
| 1927 | - | 72 | 191 | 150 | 155 | 216 | 291 | 290 | 326 | 424 | 667 | 582 | 674 | 392 | - | 322 | 4,752 |
| 1928 | - | 65 | 195 | 178 | 166 | 233 | 259 | 281 | 281 | 394 | 630 | 540 | 597 | 346 | - | 280 | 4,445 |
| 1929 | - | 43 | 104 | 142 | 92 | 123 | 202 | 163 | 263 | 317 | 589 | 542 | 674 | 344 | - | 209 | 3,807 |
| 1930 | - | 178 | 426 | 343 | 360 | 428 | 369 | 361 | 366 | 444 | 911 | 795 | 817 | 501 | - | 523 | 6,822 |
| ELEMENTARY | | | | | | | | | | | | | | | | | |
| * 1931 | 214 | 378 | 598 | 492 | 485 | 538 | 584 | 624 | 756 | 826 | 2,344 | 2,240 | 2,203 | 2,120 | 1,381 | 793 | 11,196 |
| * 1932 | 178 | 394 | 588 | 567 | 551 | 474 | 675 | 676 | 718 | 1,078 | 2,932 | 2,589 | 2,719 | 2,536 | 1,270 | 1,523 | 11,706 |
| * 1933 | 150 | 561 | 516 | 488 | 499 | 610 | 596 | 620 | 653 | 819 | 2,950 | 2,667 | 2,726 | 2,441 | 1,560 | 747 | 11,242 |
| * 1934 | 125 | 509 | 594 | 527 | 446 | 525 | 718 | 673 | 774 | 765 | 2,595 | 2,338 | 2,916 | 2,403 | 1,438 | 1,041 | 11,563 |
| * 1935 | 113 | 390 | 498 | 498 | 494 | 511 | 554 | 665 | 732 | 848 | 3,380 | 2,881 | 3,312 | 3,002 | 1,626 | 1,186 | 11,232 |
| * 1936 | 98 | 494 | 398 | 382 | 361 | 502 | 467 | 539 | 674 | 834 | 4,037 | 3,444 | 4,550 | 3,788 | 1,655 | 967 | 11,809 |
| * 1938 | 125 | 491 | 419 | 383 | 370 | 498 | 424 | 555 | 703 | 859 | 3,875 | 3,493 | 4,796 | 4,105 | 1,828 | 1,148 | 12,297 |
| * 1939 | 140 | 409 | 371 | 355 | 383 | 446 | 428 | 528 | 809 | 964 | 4,226 | 3,710 | 5,438 | 4,545 | 1,871 | 1,060 | 13,515 |
| * 1940 | 157 | 508 | 372 | 363 | 370 | 423 | 403 | 496 | 810 | 963 | 4,276 | 3,709 | 5,596 | 4,885 | 2,193 | 1,023 | 14,413 |
| * 1941 | 398 | 485 | 492 | 503 | 514 | 427 | 640 | 502 | 758 | 944 | 4,752 | 3,921 | 5,593 | 4,947 | 2,173 | 1,503 | 14,967 |
| * 1942 | 331 | 535 | 487 | 510 | 562 | 484 | 631 | 608 | 795 | 973 | 5,285 | 4,692 | 7,455 | 5,821 | 2,529 | 707 | 16,336 |
| * 1943 | - | 1,045 | 1,602 | 1,445 | 1,542 | 1,332 | 1,359 | 1,282 | 1,437 | 1,497 | 5,179 | 4,567 | 9,445 | 7,973 | 3,130 | 803 | 16,586 |
| * 1944 | - | 610 | 1,699 | 1,655 | 1,489 | 1,603 | 1,506 | 1,430 | 1,629 | 1,520 | 4,487 | 4,004 | 9,223 | 8,133 | 3,801 | 878 | 18,823 |
| * 1945 | - | 45 | 1,745 | 1,781 | 1,690 | 1,527 | 1,774 | 1,614 | 1,723 | 1,732 | 4,093 | 3,671 | 9,134 | 7,922 | 4,149 | 626 | 43,226 |
| * 1946 | 992 | 934 | 2,041 | 1,799 | 1,823 | 1,683 | 1,669 | 1,787 | 1,830 | 1,742 | 4,606 | 4,016 | 8,646 | 7,859 | 3,956 | 689 | 46,072 |
| * 1947 | 1,169 | 940 | 1,994 | 2,018 | 1,806 | 1,826 | 1,812 | 1,711 | 1,950 | 1,920 | 2,524 | 2,280 | 8,538 | 7,894 | 4,136 | 468 | 42,986 |
| * 1948 | 1,168 | 971 | 2,078 | 1,932 | 1,942 | 1,790 | 1,851 | 1,829 | 1,891 | 2,028 | 2,146 | 2,038 | 8,077 | 6,998 | 4,264 | 601 | 41,604 |
| * 1949 | 1,532 | 997 | 2,128 | 2,036 | 1,961 | 2,000 | 1,907 | 1,896 | 2,053 | 1,968 | 2,081 | 2,018 | 7,747 | 7,185 | 4,629 | 519 | 42,657 |
| * 1950 | 1,462 | 1,017 | 2,224 | 2,126 | 2,139 | 2,060 | 2,163 | 2,046 | 2,308 | 2,188 | 1,982 | 1,896 | 7,703 | 6,927 | 4,778 | 1,097 | 44,116 |
| * 1951 | 1,629 | 1,056 | 2,075 | 2,214 | 2,229 | 2,160 | 2,207 | 2,296 | 2,421 | 2,354 | 2,026 | 1,826 | 7,015 | 6,853 | 4,972 | 616 | 43,949 |
| * 1952 | 1,487 | 1,010 | 2,071 | 2,062 | 2,221 | 2,250 | 2,277 | 2,360 | 2,572 | 2,480 | 2,229 | 1,875 | 7,406 | 6,896 | 4,897 | 733 | 44,826 |
| * 1953 | 1,652 | 1,178 | 2,123 | 2,120 | 2,195 | 2,379 | 2,429 | 2,487 | 2,734 | 2,734 | 2,166 | 2,070 | 8,232 | 7,364 | 5,072 | 556 | 47,500 |
| * 1954 | 2,183 | 1,536 | 2,238 | 2,207 | 2,251 | 2,348 | 2,622 | 2,632 | 2,901 | 2,826 | 2,497 | 2,240 | 9,153 | 7,939 | 5,322 | 545 | 51,440 |
| * 1955 | 2,021 | 1,668 | 2,611 | 2,311 | 2,361 | 2,342 | 2,638 | 2,796 | 3,066 | 2,952 | 2,581 | 2,467 | 9,982 | 8,807 | 5,856 | 181 | 54,640 |
| * 1956 | 2,027 | 1,808 | 2,656 | 2,577 | 2,386 | 2,398 | 2,582 | 2,759 | 3,254 | 3,109 | 2,800 | 2,580 | 11,591 | 9,593 | 6,379 | 180 | 58,679 |
| SECONDARY | | | | | | | | | | | | | | | | | |
| * 1931 | | | | | | | | | | | | | 6,093 | | | 793 | 11,196 |
| * 1932 | | | | | | | | | | | | | 5,846 | | | 1,523 | 11,706 |
| * 1933 | | | | | | | | | | | | | 6,262 | | | 747 | 11,242 |
| * 1934 | | | | | | | | | | | | | 6,262 | | | 1,041 | 11,563 |
| * 1935 | | | | | | | | | | | | | 6,242 | | | 1,186 | 11,232 |
| * 1936 | | | | | | | | | | | | | 6,627 | | | 967 | 11,809 |
| * 1938 | | | | | | | | | | | | | 7,915 | | | 1,148 | 12,297 |
| * 1940 | | | | | | | | | | | | | 9,413 | | | 1,060 | 13,515 |
| * 1942 | | | | | | | | | | | | | 10,087 | | | 1,023 | 14,413 |
| * 1944 | | | | | | | | | | | | | 9,612 | | | 1,503 | 14,967 |
| * 1946 | | | | | | | | | | | | | 11,752 | | | 707 | 16,336 |
| * 1947 | | | | | | | | | | | | | 2,203 | 2,120 | 1,381 | 803 | 16,586 |
| * 1949 | | | | | | | | | | | | | 2,719 | 2,536 | 1,270 | 878 | 18,823 |
| * 1951 | | | | | | | | | | | | | 2,726 | 2,441 | 1,560 | 717 | 18,573 |
| * 1953 | | | | | | | | | | | | | 2,916 | 2,403 | 1,438 | 491 | 17,837 |
| * 1955 | | | | | | | | | | | | | 3,312 | 3,002 | 1,626 | 646 | 20,150 |
| * 1957 | | | | | | | | | | | | | 4,550 | 3,788 | 1,655 | 653 | 22,876 |
| * 1958 | | | | | | | | | | | | | 4,796 | 4,105 | 1,828 | 818 | 23,742 |
| * 1959 | | | | | | | | | | | | | 5,438 | 4,545 | 1,871 | 693 | 25,316 |
| * 1960 | | | | | | | | | | | | | 5,596 | 4,885 | 2,193 | 651 | 26,175 |
| * 1961 | | | | | | | | | | | | | 5,593 | 4,947 | 2,173 | 777 | 27,826 |
| * 1962 | | | | | | | | | | | | | 7,455 | 5,821 | 2,529 | 760 | 32,458 |
| * 1963 | | | | | | | | | | | | | 9,445 | 7,973 | 3,130 | 574 | 43,409 |
| * 1964 | | | | | | | | | | | | | 9,223 | 8,133 | 3,801 | 843 | 43,632 |
| * 1965 | | | | | | | | | | | | | 9,134 | 7,922 | 4,149 | 626 | 43,226 |
| * 1966 | | | | | | | | | | | | | 8,646 | 7,859 | 3,956 | 689 | 46,072 |
| * 1967 | | | | | | | | | | | | | 8,538 | 7,894 | 4,136 | 468 | 42,986 |
| * 1968 | | | | | | | | | | | | | 8,077 | 6,998 | 4,264 | 601 | 41,604 |
| * 1969 | | | | | | | | | | | | | 7,747 | 7,185 | 4,629 | 519 | 42,657 |
| * 1970 | | | | | | | | | | | | | 7,703 | 6,927 | 4,778 | 1,097 | 44,116 |
| * 1971 | | | | | | | | | | | | | 7,015 | 6,853 | 4,972 | 616 | 43,949 |
| * 1972 | | | | | | | | | | | | | 7,406 | 6,896 | 4,897 | 733 | 44,826 |
| * 1973 | | | | | | | | | | | | | 8,232 | 7,364 | 5,072 | 556 | 47,500 |
| * 1974 | | | | | | | | | | | | | 9,153 | 7,939 | 5,322 | 545 | 51,440 |
| * 1975 | | | | | | | | | | | | | 9,982 | 8,807 | 5,856 | 181 | 54,640 |
| * 1976 | | | | | | | | | | | | | 11,591 | 9,593 | 6,379 | 180 | 58,679 |

Sources: For years 1926-36, Dominion Bureau of Statistics, Education Division, Annual Survey in Canada (1925-36), (Ottawa, Queen's Printer).
 For years 1938-47, Dominion Bureau of Statistics, Education Division, Survey of Elementary and Secondary Education, Catalogue 81-401 (Ottawa, Queen's Printer). For years 1949-62, Ibid., Catalogue 81-210. For years 1966-67, Ibid., Catalogue 81-215. For years 1963-65, 1968-76, Reports of the Minister of Education (Ontario).

* Enrolment not available by grades. Figures for elementary, secondary and auxiliary classes respectively.

** Originally misprinted as 20,155.

TABLE 3.8
CROWN LAND SCHOOL ENROLMENT IN ONTARIO (1967-76)

| ACADEMIC YEAR BEGINNING | JK. | K. | GR. 1 | GR. 2 | GR. 3 | GR. 4 | GR. 5 | GR. 6 | GR. 7 | GR. 8 | GR. 9 | GR. 10 | GR. 11 | GR. 12 | GR. 13 | AUX.* | TOTAL |
|-------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|-------|--------|
| 1967 | - | 1,353 | 1,475 | 1,418 | 1,472 | 1,379 | 1,388 | 1,304 | 1,193 | 1,015 | - | - | - | - | - | 172 | 12,169 |
| 1968 | - | 1,286 | 1,387 | 1,432 | 1,354 | 1,402 | 1,275 | 1,324 | 1,222 | 1,112 | - | - | - | - | - | 229 | 12,023 |
| 1969 | - | 1,050 | 1,253 | 1,221 | 1,254 | 1,150 | 1,260 | 1,140 | 1,135 | 1,064 | 399 | 327 | 264 | 189 | 77 | 182 | 11,965 |
| 1970 | - | 862 | 1,103 | 1,143 | 1,188 | 1,105 | 1,098 | 1,105 | 1,091 | 1,001 | 384 | 351 | 255 | 228 | 93 | 153 | 11,160 |
| 1971 | - | 771 | 824 | 1,007 | 1,056 | 1,094 | 1,072 | 973 | 988 | 917 | 353 | 373 | 299 | 210 | 102 | 185 | 10,224 |
| 1972 | - | 562 | 724 | 658 | 775 | 862 | 861 | 830 | 785 | 748 | 370 | 316 | 297 | 215 | 83 | 147 | 8,233 |
| 1973 | 395 | 611 | 600 | 685 | 730 | 774 | 889 | 863 | 865 | 764 | 305 | 287 | 224 | 217 | 98 | 122 | 8,429 |
| 1974 | 443 | 557 | 628 | 610 | 653 | 685 | 765 | 822 | 812 | 778 | 277 | 282 | 231 | 160 | 75 | - | 7,778 |
| 1975 | 472 | 546 | 551 | 586 | 577 | 570 | 665 | 719 | 762 | 725 | 343 | 266 | 225 | 182 | 77 | 94 | 7,360 |
| 1976 | 434 | 554 | 575 | 545 | 569 | 560 | 534 | 636 | 655 | 700 | 301 | 301 | 222 | 181 | 74 | 100 | 6,941 |

Sources: For grades JK.-8, and auxiliary class, Ministry of Education, Public School Enrolment (1967-76) (Ontario)
For grades 9-13, Ministry of Education, Secondary School Enrolment (1969-76) (Ontario)

*For elementary classes only.

TABLE 3.9
ENROLMENT IN INDIAN SCHOOLS BY GRADES IN ONTARIO (1926-76)

| ACADEMIC YEAR BEGINNING | KINDERGARTEN PRE-GRAD | GR. 1 | GR. 2 | (Boys) | | GR. 5 | GR. 6 | (Girls) | | GR. 7 | GR. 8 | GR. 9 | GR. 10 | GR. 11 | GR. 12 | GR. 13 | AUXILIARY | TOTAL |
|----------------------------|--------------------------|-------|-------|--------|--|-------|-------|---------|--|-------|-------|-------|--------|--------|--------|--------|-----------|-------|
| 1926 * | - | 1,686 | 699 | | | 473 | 313 | | | 111 | 140 | - | - | - | - | - | - | 3,830 |
| 1927 * | - | 1,620 | 715 | | | 431 | 382 | | | 136 | 102 | 11 | - | - | - | - | - | 2,589 |
| 1928 * | - | 1,613 | 751 | | | 439 | 384 | | | 166 | 105 | 34 | - | - | - | - | - | 3,833 |
| 1929 * | - | 1,553 | 706 | | | 452 | 380 | | | 140 | 102 | 38 | - | - | - | - | - | 3,887 |
| 1930 * | - | 1,446 | 612 | | | 536 | 354 | | | 206 | 184 | 47 | - | - | - | - | - | 4,105 |
| 1931 * | - | 1,552 | 603 | | | 578 | 358 | | | 214 | 174 | 47 | - | - | - | - | - | 4,296 |
| 1932 * | - | 1,396 | 775 | | | 653 | 333 | | | 274 | 277 | 93 | - | - | - | - | - | 4,464 |
| 1933 * | - | 1,708 | 744 | | | 585 | 417 | | | 363 | 361 | 91 | 21 | 26 | 8 | - | - | 4,525 |
| 1934 * | - | 1,813 | 899 | | | 735 | 442 | | | 363 | 384 | 109 | 43 | 16 | 20 | - | - | 4,524 |
| 1935 * | - | 1,884 | 1,003 | | | 695 | 431 | | | 398 | 332 | 82 | 64 | 18 | 9 | - | - | 4,601 |
| 1936 * | - | 2,029 | 1,019 | | | 772 | 593 | | | 405 | 330 | 105 | 63 | 45 | 31 | - | - | 4,664 |
| 1937 * | 289 | 1,573 | 1,159 | | | 827 | 577 | | | 518 | 378 | 142 | 118 | 79 | 58 | 9 | - | 4,631 |
| 1938 * | 688 | 1,517 | 1,071 | | | 822 | 743 | | | 479 | 328 | 67 | 71 | 11 | 7 | - | - | 4,667 |
| 1939 * | 500 | 1,457 | 1,087 | | | 894 | 823 | | | 473 | 329 | 71 | 79 | 11 | 7 | - | - | 4,255 |
| 1940 * | 607 | 1,376 | 1,139 | | | 904 | 772 | | | 500 | 336 | 42 | 19 | - | - | - | - | 4,004 |
| 1941 * | 789 | 1,090 | 1,092 | | | 830 | 701 | | | 405 | 348 | 27 | 25 | - | - | - | - | 4,426 |
| 1942 * | 789 | 1,166 | 1,086 | | | 795 | 728 | | | 432 | 387 | 28 | 24 | 19 | - | - | - | 4,806 |
| 1943 * | 754 | 1,095 | 1,123 | | | 823 | 636 | | | 421 | 343 | 31 | 22 | 11 | - | - | - | 5,398 |
| 1944 * | 754 | 1,068 | 1,063 | | | 801 | 688 | | | 394 | 316 | 23 | 13 | 10 | - | - | - | 5,963 |
| 1945 * | 712 | 1,076 | 1,087 | | | 895 | 653 | | | 385 | 316 | 28 | 13 | 10 | - | - | - | 6,566 |
| 1946 * | 570 | 1,132 | 1,012 | | | 854 | 638 | | | 421 | 316 | 23 | 13 | 10 | - | - | - | 6,792 |
| 1947 * | 788 | 1,190 | 996 | | | 754 | 667 | | | 460 | 346 | 1 | 1 | - | - | - | - | 7,085 |
| 1948 * | 835 | 1,164 | 1,004 | | | 794 | 657 | | | 475 | 368 | 5 | - | - | - | - | - | 7,145 |
| 1949 * | 835 | 1,067 | 945 | | | 848 | 656 | | | 475 | 368 | 5 | - | - | - | - | - | 6,886 |
| 1950 * | 810 | 1,023 | 883 | | | 829 | 670 | | | 540 | 413 | 27 | 19 | - | - | - | - | 6,953 |
| 1951 * | 939 | 1,025 | 1,025 | | | 729 | 710 | | | 540 | 413 | 27 | 19 | - | - | - | - | 6,815 |
| 1952 * | 993 | 972 | 870 | | | 798 | 721 | | | 540 | 413 | 27 | 19 | - | - | - | - | 6,772 |
| 1953 * | 1,193 | 887 | 867 | | | 840 | 798 | | | 540 | 413 | 27 | 19 | - | - | - | - | 6,772 |
| 1954 * | 1,292 | 905 | 821 | | | 832 | 740 | | | 567 | 509 | 40 | 16 | - | - | - | - | 6,495 |
| 1955 * | 1,206 | 905 | 849 | | | 845 | 751 | | | 640 | 505 | 62 | 28 | 6 | - | - | - | 6,752 |
| 1956 * | 1,200 | 940 | 845 | | | 782 | 770 | | | 640 | 579 | 64 | 24 | 56 | - | - | - | 6,790 |
| 1957 * | - | - | - | | | 725 | 730 | | | 625 | 575 | 75 | 27 | 55 | - | - | - | 6,605 |
| 1958 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | 6,454 |
| 1959 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | 7,157 |
| 1960 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | 7,106 |
| 1961 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | 7,149 |
| 1962 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | 7,465 |
| 1963 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | 7,391 |
| 1964 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | 7,362 |
| 1965 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1966 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1967 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1968 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1969 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1970 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1971 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1972 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1973 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1974 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1975 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |
| 1976 * | - | - | - | | | - | - | | | - | - | - | - | - | - | - | - | - |

Sources: For years 1926-36, Dominion Bureau of Statistics, Education Division, Annual Survey in Canada (1925-36) (Ottawa, Queen's Printer),
For years 1938-48, Dominion Bureau of Statistics, Education Division, Survey of Elementary & Secondary Education,
Catalogue No. 81-401 (Ottawa, Queen's Printer). For years 1949-60, Ibid., Catalogue No. 81-210. For years 1961-69,
Ibid., Catalogue No. 81-201. For years 1970, Minister of Indian Affairs and Northern Development Information, The
Canadian Indian Statistics (Ottawa, 1973).

* Enrolment not available by grades. Figures for boys and girls respectively.

ACTUAL AND PROJECTED CHANGEL IN PUBLIC ELEMENTARY SCHOOL ENROLLMENT* BY COUNTIES AND DISTRICTS 1971-1986

| CITY/DISTRICT | ACTUAL | CHANGE IN NUMBER AND PERCENTAGE | | | | | | | | | | | |
|----------------------------------|--------|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | 1971-1972 | 1972-1973 | 1973-1974 | 1974-1975 | 1975-1976 | 1976-1977 | 1977-1978 | 1978-1979 | 1979-1980 | 1980-1981 | 1981-1982 | 1982-1983 |
| 1. ALBANY | 11929 | 9901 | 9749 | -1052 | -878 | -1242 | -1772 | -3071 | -4741 | -5174 | -2103 | -1834 | |
| 2. BRANT | 11975 | 9803 | 9424 | -1672 | -359 | -390 | -2456 | -3413 | -915 | -3413 | -915 | -3413 | |
| 3. BRUCE | 6900 | 7886 | 8533 | 986 | 646 | 2122 | 1429 | 753 | 390 | 2456 | 3413 | 1944 | |
| 4. CARLETON | 20177 | 27334 | 34844 | 7157 | 7466 | 7533 | 7533 | 7533 | 7533 | 7533 | 7533 | 7533 | |
| 5. CHATHAM | 5836 | 5836 | 5836 | 5836 | 5836 | 5836 | 5836 | 5836 | 5836 | 5836 | 5836 | 5836 | |
| 6. DUFFERIN | 4271 | 5193 | 5193 | 922 | 922 | 922 | 922 | 922 | 922 | 922 | 922 | 922 | |
| 7. FLAMING | 8668 | 8295 | 8111 | -373 | -186 | -186 | -186 | -186 | -186 | -186 | -186 | -186 | |
| 8. ESSEX | 10445 | 9622 | 9427 | -823 | -205 | -205 | -205 | -205 | -205 | -205 | -205 | -205 | |
| 9. FRONTENAC | 10440 | 8741 | 8424 | -1699 | -316 | -316 | -316 | -316 | -316 | -316 | -316 | -316 | |
| 10. GREY | 9343 | 8957 | 9391 | 394 | 434 | 434 | 434 | 434 | 434 | 434 | 434 | 434 | |
| 11. HALDIMAND-N. PEEL | 1434 | 9001 | 8768 | -333 | -233 | -233 | -233 | -233 | -233 | -233 | -233 | -233 | |
| 12. HALIBURTON | 1498 | 1563 | 1401 | -65 | -162 | -162 | -162 | -162 | -162 | -162 | -162 | -162 | |
| 13. HALTON | 28099 | 27135 | 2874 | -964 | -1455 | -1455 | -1455 | -1455 | -1455 | -1455 | -1455 | -1455 | |
| 14. HASTINGS | 2006 | 11455 | 11455 | 11455 | 11455 | 11455 | 11455 | 11455 | 11455 | 11455 | 11455 | 11455 | |
| 15. HURON | 6830 | 5774 | 5774 | -1056 | -1056 | -1056 | -1056 | -1056 | -1056 | -1056 | -1056 | -1056 | |
| 16. KESWICK | 6337 | 5774 | 5774 | -563 | -563 | -563 | -563 | -563 | -563 | -563 | -563 | -563 | |
| 17. KENT | 10787 | 10394 | 9447 | -393 | -847 | -847 | -847 | -847 | -847 | -847 | -847 | -847 | |
| 18. LANARK | 13068 | 12663 | 12663 | -405 | -405 | -405 | -405 | -405 | -405 | -405 | -405 | -405 | |
| 19. LEAMINGTON | 4581 | 4400 | 4400 | -181 | -181 | -181 | -181 | -181 | -181 | -181 | -181 | -181 | |
| 20. LEEDS & GRENVILLE | 9477 | 8430 | 8430 | -1047 | -1047 | -1047 | -1047 | -1047 | -1047 | -1047 | -1047 | -1047 | |
| 21. LENOX & ADDINGTON | 4919 | 4919 | 4919 | 4919 | 4919 | 4919 | 4919 | 4919 | 4919 | 4919 | 4919 | 4919 | |
| 22. NIAGARA FALLS | 47484 | 47484 | 47484 | 47484 | 47484 | 47484 | 47484 | 47484 | 47484 | 47484 | 47484 | 47484 | |
| 23. MANITOULIN | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | 1307 | |
| 24. MIDDLESEX | 8641 | 8641 | 8641 | 8641 | 8641 | 8641 | 8641 | 8641 | 8641 | 8641 | 8641 | 8641 | |
| 25. MICHIGAN | 4797 | 4797 | 4797 | 4797 | 4797 | 4797 | 4797 | 4797 | 4797 | 4797 | 4797 | 4797 | |
| 26. NIPISSING | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | |
| 27. OSHWAGO | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | 5433 | |
| 28. PARRY | 41279 | 41279 | 41279 | 41279 | 41279 | 41279 | 41279 | 41279 | 41279 | 41279 | 41279 | 41279 | |
| 29. PELL | 8924 | 8924 | 8924 | 8924 | 8924 | 8924 | 8924 | 8924 | 8924 | 8924 | 8924 | 8924 | |
| 30. PERTH | 11475 | 11475 | 11475 | 11475 | 11475 | 11475 | 11475 | 11475 | 11475 | 11475 | 11475 | 11475 | |
| 31. PETERBOROUGH | 920 | 1373 | 1373 | 453 | 453 | 453 | 453 | 453 | 453 | 453 | 453 | 453 | |
| 32. PRESCOTT & RUSSELL | 1480 | 1480 | 1480 | 1480 | 1480 | 1480 | 1480 | 1480 | 1480 | 1480 | 1480 | 1480 | |
| 33. FRANK EDWARD | 1585 | 1585 | 1585 | 1585 | 1585 | 1585 | 1585 | 1585 | 1585 | 1585 | 1585 | 1585 | |
| 34. RAINY RIVER | 8386 | 8386 | 8386 | 8386 | 8386 | 8386 | 8386 | 8386 | 8386 | 8386 | 8386 | 8386 | |
| 35. RENFREW | 24798 | 24798 | 24798 | 24798 | 24798 | 24798 | 24798 | 24798 | 24798 | 24798 | 24798 | 24798 | |
| 36. T. MCNICHOL | 7910 | 7910 | 7910 | 7910 | 7910 | 7910 | 7910 | 7910 | 7910 | 7910 | 7910 | 7910 | |
| 37. THURMONT, LONDAS & GLENGARRY | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | |
| 38. THURMONT | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | 13219 | |
| 39. THUNDER BAY | 14783 | 14783 | 14783 | 14783 | 14783 | 14783 | 14783 | 14783 | 14783 | 14783 | 14783 | 14783 | |
| 40. TIMISKAMING | 4998 | 4998 | 4998 | 4998 | 4998 | 4998 | 4998 | 4998 | 4998 | 4998 | 4998 | 4998 | |
| 41. VICTORIA | 5552 | 5552 | 5552 | 5552 | 5552 | 5552 | 5552 | 5552 | 5552 | 5552 | 5552 | 5552 | |
| 42. WATERLOO | 14117 | 14117 | 14117 | 14117 | 14117 | 14117 | 14117 | 14117 | 14117 | 14117 | 14117 | 14117 | |
| 43. WELLINGTON | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |
| 44. WENTWORTH | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |
| 45. YORK | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |
| 46. YORKVILLE & RITAP | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |
| 47. HAMILTON | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |
| 48. J. J. J. | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |
| 49. OTTAWA | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |
| 50. METRO TORONTO | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |
| 51. WINDSOR | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | 11594 | |

Source: Annual Reports of the Minister of Education of Ontario

1. Excludes Toronto
 2. Excludes Windsor
 3. Excludes London
 4. Excludes Kingston
 5. Excludes Niagara Falls
 6. Excludes Peterborough
 7. Excludes Sudbury
 8. Excludes Thunder Bay
 9. Excludes Timiskaming
 10. Excludes Victoria
 11. Excludes Waterloo
 12. Excludes Wellington
 13. Excludes Wentworth
 14. Excludes York
 15. Excludes Yorkville & Ritap
 16. Excludes Hamilton
 17. Excludes J. J. J.
 18. Excludes Ottawa
 19. Excludes Metro Toronto
 20. Excludes Windsor

Excluding Kindergarten

TABLE 3.11
ACTUAL AND PROJECTED CHANGE IN RC SEPARATE SCHOOL ENROLMENT*
BY COUNTIES AND DISTRICTS, 1971-1986

| COUNTY/DISTRICT | Actual | | Projected | | 1971-1976 | | 1971-1981 | | 1971-1986 | | 1976-1986 | |
|----------------------------------|--------|-------|-----------|-------|-----------|---------|-----------|---------|-----------|---------|-----------|--------|
| | 1971 | 1976 | 1981 | 1986 | No. | % | No. | % | No. | % | No. | % |
| 1. ALGOMA | 10571 | 9184 | 7774 | 7623 | -1387 | -13.12 | -2797 | -26.46 | -2948 | -27.89 | -1561 | -17.00 |
| 2. BRANT | 3430 | 3152 | 3039 | 3140 | - 278 | - 8.10 | - 391 | -11.40 | - 290 | - 8.45 | - 12 | - 0.38 |
| 3. BRUCE | 1821 | 1909 | 2252 | 2818 | 88 | 4.83 | 431 | 23.67 | 997 | 54.75 | 909 | 47.62 |
| 4. CARLETON ¹ | 10482 | 12870 | 14174 | 16204 | 2388 | 22.78 | 3692 | 35.22 | 5722 | 54.59 | 3334 | 25.91 |
| 5. COCHRANE | 12816 | 10390 | 8796 | 7987 | -2426 | -18.93 | -4020 | -31.37 | -4829 | -37.68 | -2403 | -23.13 |
| 6. DUFFERIN | 215 | 331 | 540 | 735 | 116 | 53.95 | 325 | 151.16 | 520 | 241.86 | 404 | 122.05 |
| 7. ELGIN | 1676 | 1501 | 1215 | 1227 | - 175 | -10.44 | - 461 | -27.51 | - 449 | -26.79 | - 274 | -18.25 |
| 8. ESSEX ² | 9278 | 9351 | 9038 | 8878 | 73 | 0.79 | - 240 | - 2.59 | - 400 | - 4.31 | - 473 | - 5.06 |
| 9. FRONTENAC | 3220 | 3085 | 2725 | 2622 | - 135 | - 4.19 | - 495 | -15.37 | - 598 | -18.57 | - 463 | -15.01 |
| 10. GREY | 834 | 842 | 934 | 986 | 8 | 0.96 | 100 | 11.99 | 152 | 18.23 | 144 | 17.10 |
| 11. HALDIMAND-NORFOLK | 2534 | 2441 | 2307 | 2226 | - 93 | - 3.67 | - 227 | - 8.96 | - 308 | -12.15 | - 215 | - 8.81 |
| 12. HALTON | 7181 | 7454 | 7662 | 8131 | 273 | 3.80 | 481 | 6.70 | 950 | 13.23 | 677 | 9.08 |
| 13. HASTINGS | 3565 | 3330 | 3051 | 3166 | - 235 | - 6.59 | - 514 | -14.42 | - 399 | -11.19 | - 164 | - 4.92 |
| 14. HURON | 1441 | 1345 | 1426 | 1610 | - 96 | - 6.66 | - 15 | - 1.04 | - 169 | -11.73 | 265 | 19.70 |
| 15. KENORA | 1671 | 1490 | 1205 | 1095 | - 181 | -10.83 | - 466 | -27.89 | - 576 | -34.47 | - 395 | -26.51 |
| 16. KENT | 5391 | 5076 | 4509 | 4299 | - 315 | - 5.84 | - 882 | -16.36 | -1092 | -20.26 | - 777 | -15.31 |
| 17. LAMTON | 4743 | 4579 | 4984 | 5414 | - 164 | - 3.46 | 241 | 5.08 | 671 | 14.15 | 835 | 18.24 |
| 18. LANARK | 1397 | 1175 | 1054 | 1018 | - 222 | -15.89 | - 343 | -24.55 | - 379 | -27.13 | - 157 | -13.36 |
| 19. LEEDS & GRENVILLE | 1794 | 1531 | 1283 | 1268 | - 263 | -14.66 | - 511 | -28.48 | - 526 | -29.32 | - 263 | -17.18 |
| 20. LENNOX/ADDINGTON | 492 | 671 | 686 | 753 | 179 | 36.38 | 194 | 39.43 | 261 | 53.05 | 82 | 12.22 |
| 21. NIAGARA | 19029 | 17177 | 15085 | 14018 | -1852 | - 9.73 | -3944 | -20.73 | -5011 | -26.33 | -3159 | -18.39 |
| 22. MANITOULIN | 131 | 94 | 96 | 96 | - 37 | -28.24 | - 35 | -26.72 | - 35 | -26.72 | 2 | 2.13 |
| 23. MIDDLESEX ³ | 9986 | 9317 | 8142 | 7543 | - 669 | - 6.70 | -1844 | -18.47 | -2443 | -24.46 | -1774 | -19.04 |
| 24. NIPISSING | 9995 | 7858 | 6406 | 6427 | -2137 | -21.38 | -3589 | -35.91 | -3568 | -35.70 | -1431 | -18.21 |
| 25. OXFORD | 1936 | 1810 | 1590 | 1654 | - 126 | - 6.51 | - 346 | -17.87 | - 282 | -14.57 | - 156 | - 8.62 |
| 26. PARRY SOUND | 10 | 0 | 0 | 0 | - 10 | -100.00 | - 10 | -100.00 | - 10 | -100.00 | 0 | 0 |
| 27. PEEL | 9930 | 17268 | 27827 | 37717 | 7338 | 73.90 | 17897 | -180.23 | 27787 | 279.83 | 20449 | 118.42 |
| 28. PERTH | 1767 | 1387 | 1168 | 1191 | - 380 | -21.51 | - 599 | -33.90 | - 576 | -32.60 | - 196 | -14.13 |
| 29. PETERBOROUGH | 4008 | 3377 | 2768 | 2885 | - 631 | -15.74 | -1240 | -30.94 | -1123 | -28.02 | - 492 | -14.57 |
| 30. PRESCOTT & RUSSELL | 7833 | 6609 | 5746 | 6370 | -1224 | -15.63 | -2087 | -26.64 | -1463 | -18.68 | - 239 | - 3.62 |
| 31. PRINCE EDWARD | 112 | 104 | 103 | 104 | - 8 | - 7.14 | - 9 | - 8.04 | - 8 | - 7.14 | 0 | 0 |
| 32. RAINY RIVER | 1102 | 810 | 784 | 738 | - 292 | -26.50 | - 318 | -28.86 | - 364 | -33.03 | - 72 | - 8.89 |
| 33. RENFREW | 6745 | 5348 | 4230 | 3985 | -1397 | -20.71 | -2515 | -37.28 | -2760 | -40.92 | 1363 | -25.49 |
| 34. SIMCOE | 5442 | 5261 | 5816 | 6786 | - 181 | - 3.33 | 374 | 6.87 | 1344 | 24.70 | 1525 | 28.99 |
| 35. STORMONT, DUNDAS & GLENGARRY | 10013 | 7733 | 7062 | 7792 | -2280 | -22.77 | -2951 | -29.47 | -2221 | -22.18 | 59 | 0.76 |
| 36. SUDBURY | 24800 | 21134 | 17857 | 15344 | -3666 | -14.78 | -6943 | -28.00 | -9456 | -38.13 | -5790 | -27.40 |
| 37. THUNDER BAY | 8065 | 7665 | 7128 | 6756 | - 400 | - 4.96 | - 937 | -11.62 | -1309 | -16.23 | - 909 | -11.86 |
| 38. TIMISKAMING | 3904 | 3038 | 2463 | 2301 | - 866 | -22.18 | -1441 | -36.91 | -1603 | -41.06 | - 737 | -24.26 |
| 39. VICTORIA | 501 | 530 | 642 | 825 | 29 | 5.79 | 141 | 28.14 | 324 | 64.67 | 295 | 55.66 |
| 40. WATERLOO | 15128 | 15386 | 14727 | 14830 | 258 | 1.71 | - 401 | - 2.65 | - 298 | - 1.97 | - 556 | - 3.61 |
| 41. WELLINGTON | 4752 | 4579 | 4258 | 4383 | - 173 | - 3.64 | - 494 | -10.40 | - 369 | - 7.77 | - 196 | - 4.28 |
| 42. HAMILTON-WENTWORTH | 21876 | 20478 | 17364 | 15807 | -1398 | - 6.39 | -4512 | -20.63 | -6069 | -27.74 | -4671 | -22.81 |
| 43. YORK | 4478 | 6376 | 8296 | 9471 | 1898 | 42.38 | 3818 | 85.26 | 4993 | 111.50 | 3095 | 48.54 |
| 44. OTTAWA | 25338 | 17711 | 13297 | 10656 | -7627 | -30.10 | -12041 | -47.52 | -14682 | -57.94 | -7055 | -28.83 |
| 45. METRO TORONTO | 70298 | 77886 | 69578 | 61319 | -7588 | -10.79 | - 720 | - 1.02 | -8979 | -12.77 | -16567 | -21.27 |
| 46. WINDSOR | 18287 | 15755 | 12987 | 11579 | -2532 | -13.85 | -5300 | -28.98 | -6708 | -36.68 | -4176 | -26.51 |

¹ Carleton excluding Ottawa

² Essex excluding Windsor

³ Middlesex including London

* Excluding Kindergarten

Source: Annual Reports of the Minister of Education of Ontario

TABLE 3.12

ACTUAL AND PROJECTED CHANGE IN SECONDARY SCHOOL ENROLMENT BY COUNTIES AND DISTRICTS 1971-1986

| COUNTY/DISTRICT | ACTUAL | | PROJECTED | | 1971-1976 | | 1971-1981 | | 1971-1986 | | 1976-1986 | |
|----------------------------------|--------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|---------|-----------|--------|
| | 1971 | 1976 | 1981 | 1986 | NO. | % | NO. | % | NO. | % | NO. | % |
| 1. ALGOMA | 9690 | 10117 | 8659 | 7339 | 427 | 4.41 | - 1031 | -10.64 | - 2351 | - 24.26 | - 2778 | -27.46 |
| 2. BRANT | 6891 | 6744 | 6386 | 5723 | - 147 | - 2.13 | - 505 | - 7.33 | - 1168 | - 16.95 | - 1021 | -15.14 |
| 3. BRUCE | 3494 | 3632 | 3644 | 3874 | 138 | 3.95 | 150 | 4.29 | 380 | 10.88 | 242 | 7.06 |
| 4. CARLETON ¹ | 10368 | 15134 | 16835 | 18216 | 4766 | 45.97 | 6467 | 62.37 | 7648 | 75.69 | 3882 | 38.86 |
| 5. COCHRANE | 8634 | 8813 | 7897 | 7229 | 179 | 2.07 | - 737 | - 8.54 | - 1405 | - 16.27 | - 1584 | -17.97 |
| 6. DUFFERIN | 1876 | 2351 | 2533 | 3023 | 475 | 25.32 | 657 | 35.02 | 1147 | 61.14 | 672 | 28.58 |
| 7. ELGIN ² | 4375 | 4855 | 4741 | 4443 | 480 | 10.97 | 366 | 8.37 | 68 | 1.55 | - 412 | - 9.49 |
| 8. ESSEX ² | 8198 | 8687 | 8389 | 8040 | 489 | 5.96 | 191 | 2.33 | - 158 | - 1.93 | - 647 | - 7.45 |
| 9. FRONTENAC | 7825 | 8135 | 7049 | 6022 | 310 | 3.96 | - 776 | - 9.92 | - 1803 | - 23.04 | - 2113 | -25.97 |
| 10. GREY | 5466 | 5552 | 5125 | 4963 | 86 | 1.57 | - 341 | - 6.24 | - 503 | - 9.20 | - 589 | -10.61 |
| 11. HALDIMAND-NORFOLK | 7349 | 6979 | 6215 | 5496 | - 370 | - 5.03 | - 1134 | -15.43 | - 1853 | - 25.21 | - 1483 | -21.25 |
| 12. HALIBURTON | 597 | 676 | 647 | 642 | 79 | 13.23 | 50 | 8.38 | 45 | 7.54 | 34 | 5.73 |
| 13. HALTON | 16662 | 20935 | 20423 | 19237 | 4273 | 25.65 | 3761 | 22.57 | 2575 | 15.54 | - 1698 | - 8.11 |
| 14. HASTINGS | 8817 | 9198 | 8136 | 7611 | 381 | 4.32 | - 681 | - 7.72 | - 1206 | - 13.68 | - 1587 | -17.25 |
| 15. HURON | 4661 | 4689 | 4113 | 3909 | 28 | 0.60 | - 548 | -11.76 | - 752 | - 16.13 | - 780 | -16.63 |
| 16. KENORA | 3800 | 4030 | 3430 | 3033 | 230 | 6.05 | - 370 | - 9.74 | - 767 | - 20.18 | - 937 | -24.74 |
| 17. KENT | 8619 | 8370 | 7125 | 6671 | - 249 | - 2.89 | - 1494 | -17.33 | - 1948 | - 22.60 | - 1699 | -20.30 |
| 18. LAMBERTON | 9102 | 8897 | 7864 | 8113 | - 205 | - 2.25 | - 1238 | -13.60 | - 989 | - 10.87 | - 784 | - 8.81 |
| 19. LANARK | 3412 | 3619 | 3413 | 3217 | 207 | 6.07 | 1 | 0.03 | - 195 | - 5.72 | - 452 | -11.11 |
| 20. LEEDS & GRENVILLE | 5962 | 6232 | 5827 | 5067 | 270 | 4.53 | - 135 | - 2.26 | - 895 | - 15.01 | - 1165 | -18.69 |
| 21. LENNOX & ADDINGTON | 2461 | 2725 | 2731 | 2777 | 264 | 10.73 | 270 | 10.97 | 316 | 12.84 | 52 | 1.91 |
| 22. NIAGARA | 27388 | 26988 | 24046 | 20956 | - 400 | - 1.46 | - 3342 | -12.20 | - 6432 | - 23.48 | - 6432 | -22.35 |
| 23. MANITOULIN | 924 | 931 | 715 | 639 | 7 | 0.76 | - 209 | -22.62 | - 5 | - 0.05 | - 292 | -31.36 |
| 24. MIDDLESEX ³ | 3937 | 4373 | 3877 | 3544 | 436 | 11.07 | - 60 | - 1.52 | - 103 | - 2.58 | - 511 | -12.96 |
| 25. MUSKOKA | 2536 | 2835 | 2627 | 2544 | 299 | 11.79 | 91 | 3.59 | 8 | 0.32 | - | - |
| 26. NIPISSING | 7282 | 7467 | 6105 | 5013 | 185 | 2.54 | 1177 | -16.11 | - 69 | - 1.18 | - 144 | - 2.87 |
| 27. OXFORD | 6181 | 6298 | 5537 | 4839 | 117 | 1.89 | - 644 | -10.42 | - 1342 | - 21.34 | - 1455 | -23.19 |
| 28. PARRY SOUND | 2615 | 2718 | 2284 | 1923 | 103 | 3.94 | - 331 | -12.66 | - 692 | - 26.46 | - 795 | -29.25 |
| 29. PEEL | 19884 | 28784 | 33947 | 42097 | 8900 | 44.76 | 14063 | 70.73 | 22213 | 111.71 | 13313 | 46.25 |
| 30. PERTH | 5189 | 5540 | 4785 | 4164 | 351 | 6.76 | - 404 | - 7.79 | - 1025 | - 19.75 | - 1376 | -24.64 |
| 31. PETERBOROUGH | 7496 | 7785 | 7037 | 6206 | 289 | 3.86 | - 459 | - 6.12 | - 1290 | - 17.21 | - 1579 | -20.28 |
| 32. PRESCOTT & RUSSELL | 4124 | 4251 | 3891 | 3508 | 127 | 3.08 | - 233 | - 5.65 | - 616 | - 14.94 | - 743 | -17.48 |
| 33. PRINCE EDWARD | 1448 | 1497 | 1309 | 1090 | 49 | 3.38 | - 139 | - 9.60 | - 358 | - 24.72 | - 407 | -27.19 |
| 34. RAINY RIVER | 2391 | 2264 | 1877 | 1828 | - 127 | - 5.31 | - 514 | -21.50 | - 563 | - 23.55 | - 436 | -19.26 |
| 35. RENFREW | 8200 | 7855 | 6514 | 5265 | - 345 | - 4.21 | - 1686 | -20.56 | - 2935 | - 35.79 | - 2590 | -32.97 |
| 36. SIMCOE | 13961 | 15959 | 15898 | 16851 | 1998 | 14.31 | 1937 | 13.87 | 2890 | 20.70 | 892 | 5.59 |
| 37. STORMONT, DUNDAS & GLENGARRY | 8933 | 9232 | 7613 | 6193 | 299 | 3.35 | - 1320 | -14.78 | - 2740 | - 30.67 | - 3039 | -32.92 |
| 38. SUDBURY | 16266 | 16554 | 13252 | 11671 | 288 | 1.77 | - 3014 | -18.53 | - 4595 | - 28.25 | - 4883 | -29.50 |
| 39. THUNDER BAY | 11974 | 11752 | 10190 | 9600 | - 222 | - 1.85 | - 1784 | -14.90 | - 2374 | - 19.83 | - 2152 | -18.31 |
| 40. TIMISKAMING | 4471 | 4285 | 3121 | 2649 | - 186 | - 4.16 | - 1350 | -30.19 | - 1822 | - 40.75 | - 1636 | -38.18 |
| 41. VICTORIA | 2791 | 3159 | 3200 | 3210 | 368 | 13.19 | 409 | 14.65 | 419 | 15.01 | 51 | 1.61 |
| 42. WATERLOO | 16665 | 17850 | 17656 | 17372 | 1185 | 7.11 | 991 | 5.95 | 707 | 4.24 | - 478 | - 2.68 |
| 43. WELLINGTON | 8209 | 8695 | 7948 | 7580 | 486 | 5.92 | - 261 | - 3.18 | - 629 | - 7.66 | - 1115 | -12.82 |
| 44. WENTWORTH EXCLUDING HAMILTON | 7281 | 7471 | 6198 | 5115 | 190 | 2.61 | - 1083 | -14.87 | - 2166 | - 29.75 | - 2356 | -31.54 |
| 45. YORK EXCLUDING METRO TORONTO | 14142 | 16446 | 16766 | 17184 | 2304 | 16.29 | 2624 | 18.55 | 3042 | 21.51 | 738 | 4.49 |
| 46. HAMILTON | 19697 | 18710 | 15240 | 12060 | - 987 | - 5.01 | - 4457 | -22.63 | - 7637 | -38.77 | - 6650 | -35.54 |
| 47. LONDON | 16962 | 18554 | 15241 | 13373 | 1592 | 9.39 | - 1721 | -10.15 | - 3589 | - 21.16 | - 5181 | -27.92 |
| 48. OTTAWA | 26622 | 25211 | 18831 | 14103 | -1411 | - 5.30 | - 7791 | -29.27 | -12519 | -47.03 | -11108 | -44.06 |
| 49. METRO TORONTO | 131293 | 140355 | 123440 | 103492 | 9062 | 6.90 | - 7853 | - 5.98 | -27801 | -21.17 | -36863 | -26.26 |
| 50. WINDSOR | 13563 | 12910 | 11033 | 9300 | - 653 | - 4.81 | - 2530 | -18.65 | - 4263 | - 31.43 | - 3610 | -27.96 |

¹Excluding Ottawa

²Excluding Windsor

³Excluding London

Source: Annual Reports of the Minister of Education of Ontario

TABLE 3.13

CHANGE IN PUBLIC ELEMENTARY SCHOOL ENROLMENT BY BOARD
FOR NORTHERN ONTARIO, 1971-76

| NAME OF BOARD | ENROLMENT | | CHANGE IN | CHANGE IN |
|---------------------------------|-----------|--------|-----------|-----------|
| | 1971 | 1976 | NUMBER | PERCENT |
| <u>MIDNORTHERN</u> | | | | |
| ASQUITH - GARVEY DISTRICT AREA | 40 | 16 | - 24 | -60.00 |
| CENTRAL ALGOMA | 1,768 | 1,712 | - 56 | - 3.17 |
| CHAPLEAU | 491 | 371 | -120 | -24.44 |
| ESPANOLA | 1,361 | 1,319 | - 42 | - 3.09 |
| FALCONBRIDGE C.F.B. | 151 | 121 | - 30 | -19.87 |
| FOLEYET DISTRICT AREA | 64 | 36 | - 28 | -43.75 |
| FRANZ DISTRICT AREA | - | 11 | - | - |
| GOGAMA DISTRICT AREA | 35 | 28 | - 7 | -20.00 |
| HORNEPAYNE | 289 | 239 | - 50 | -17.30 |
| MANITOULIN | 1,424 | 1,212 | -212 | -14.89 |
| MICHIPICOTEN | 689 | 589 | -100 | -14.51 |
| MILL-FOREST DISTRICT | 45 | 27 | - 18 | -40.00 |
| MISSARENDA DISTRICT AREA | 52 | 41 | - 11 | -21.15 |
| NORTH SHORE | 2,014 | 1,874 | -140 | - 6.95 |
| OBA DISTRICT AREA | 16 | 16 | 0 | 0.0 |
| SAULT STE. MARIE | 10,810 | 9,116 | -1,694 | -15.67 |
| SUDBURY | 16,227 | 12,773 | -3,454 | -21.29 |
| <u>NORTHEASTERN</u> | | | | |
| AIRY DISTRICT AREA | 71 | 57 | - 14 | -19.72 |
| BICKNELL DISTRICT AREA | 13 | 12 | - 1 | - 7.69 |
| CANFIELD DISTRICT AREA | 41 | 30 | - 11 | -26.83 |
| COCHRANE - IROQUOIS FALLS | 1,967 | 1,741 | -226 | -11.49 |
| EAST PARRY SOUND | 3,244 | 3,015 | -229 | - 7.06 |
| HEARST | 389 | 390 | 1 | 0.26 |
| KAPUSKASING | 911 | 806 | -105 | -11.53 |
| KIRKLAND LAKE | 2,261 | 1,729 | -532 | -23.53 |
| LOWTHER C.F.B. | - | - | - | - |
| MOOSE FACTORY ISLAND | 484 | 409 | - 75 | -15.50 |
| MOOSONEE DISTRICT AREA | 168 | 186 | 18 | 10.71 |
| MURCHISON & LYELL DISTRICT AREA | 49 | 49 | 0 | 0.0 |
| MUSKOKA | 5,415 | 5,121 | -294 | - 5.43 |
| NIPISSING | 6,793 | 6,038 | -755 | -11.11 |
| NORTH BAY C.F.B. | 281 | 212 | - 69 | -24.56 |
| PINARD NO. 1 (HYDRO) | 94 | 83 | - 11 | -11.70 |
| SABINE DISTRICT AREA | - | - | - | - |
| SMOKY FALLS DISTRICT AREA | 10 | 6 | - 4 | -40.00 |
| TIMISKAMING | 3,528 | 2,962 | -566 | -16.04 |
| TIMMINS | 3,409 | 3,208 | -201 | - 5.90 |
| WEST PARRY SOUND | 2,976 | 2,535 | -441 | -14.82 |
| <u>NORTHWESTERN</u> | | | | |
| ALLANWATER DISTRICT AREA | 27 | 11 | - 16 | -59.26 |
| ARMSTRONG DISTRICT AREA | 149 | 93 | - 56 | -37.58 |
| ATIKOKAN | 1,129 | 913 | -216 | -19.13 |
| AUDEN DISTRICT AREA | 36 | 23 | - 13 | -36.11 |
| CARAMAT DISTRICT AREA | 105 | 77 | - 28 | -26.67 |
| CONNELL & PONSFORD DIST. AREA | 78 | 198 | 120 | 153.85 |
| DENT DISTRICT AREA | 21 | 73 | 52 | 247.62 |
| DRYDEN | 3,783 | 3,508 | -275 | - 7.27 |
| FERLAND DISTRICT AREA | 30 | 22 | - 8 | -26.67 |
| FORT FRANCES - RAINY RIVER | 2,891 | 2,425 | -466 | -16.12 |
| GERALDTON | 715 | 566 | -149 | -20.84 |
| KASHABOWIE DISTRICT AREA | 28 | 24 | - 4 | -14.29 |
| KENORA | 2,726 | 2,089 | -637 | -23.37 |
| MINE CENTRE DISTRICT AREA | 12 | 111 | 99 | 825.00 |
| RED LAKE | 1,297 | 1,153 | -144 | -11.10 |
| UMPREVILLE DISTRICT AREA | 16 | 15 | - 1 | - 6.25 |
| KILKENNY DISTRICT AREA | 83 | 78 | - 5 | - 6.02 |
| LAKE SUPERIOR | 1,371 | 1,301 | - 70 | - 5.11 |
| LAKEHEAD | 14,941 | 13,157 | -1,784 | -11.94 |
| NANIKA DISTRICT AREA | 104 | 92 | - 12 | -11.54 |
| NIPIGON - RED ROCK | 763 | 635 | -128 | -16.78 |
| SAVANT LAKE DISTRICT AREA | 49 | 60 | 11 | 22.45 |
| UPSALA DISTRICT AREA | 55 | 60 | 5 | 9.09 |
| WHITE OTTER DISTRICT AREA | - | 32 | - | - |

Source: Annual Reports of the Minister of Education of Ontario

CHANGE IN ROMAN CATHOLIC SEPARATE SCHOOL ENROLMENT

FOR NORTHERN ONTARIO, 1971-76

| NAME OF BOARD | ENROLMENT | | CHANGE IN NUMBER | CHANGE IN PERCENT |
|----------------------------------|-----------|--------|---------------------|----------------------|
| | 1971 | 1976 | | |
| <u>MIDNORTHERN</u> | | | | |
| CHAPLEAU PANET AND CAVERLEY | 479 | 404 | - 75 | -15.66 |
| DUBREUILVILLE | - | 258 | - | - |
| FOLEYET | 125 | 75 | - 50 | -40.00 |
| GOGAMA | 148 | 160 | 12 | 8.11 |
| HORNEPAYNE | - | 120 | - | - |
| MICHIPICOTEN DISTRICT | 816 | 679 | -137 | -16.79 |
| NORTH SHORE DIST. | 3,965 | 3,180 | -785 | -19.80 |
| SAULT STE. MARIE | 8,005 | 7,301 | -704 | - 8.79 |
| SUDBURY DISTRICT | 24,961 | 23,831 | -1,130 | - 4.53 |
| SULTAN | - | 54 | - | - |
| <u>NORTHEASTERN</u> | | | | |
| COCHRANE IROQUOIS FALLS DISTRICT | 2,588 | 1,995 | -593 | -22.91 |
| HEARST DIST. | 1,801 | 1,570 | -231 | -12.83 |
| KAPUSKASING DIST. | 4,054 | 3,088 | -966 | -23.83 |
| KIRKLAND LAKE DIST. | 1,958 | 1,634 | -324 | -16.55 |
| MOOSONEE | 180 | 189 | 9 | 5.00 |
| NIPISSING DIST. | 10,671 | 9,133 | -1,538 | -14.41 |
| TIMISKAMING DIST. | 2,384 | 1,983 | -401 | -16.82 |
| TIMMINS DISTRICT | 5,513 | 5,268 | -245 | - 4.44 |
| <u>NORTHWESTERN</u> | | | | |
| ATIKOKAN NO. 1 | 390 | 366 | - 24 | - 6.15 |
| DRYDEN DIST. | 524 | 434 | - 90 | -17.18 |
| KENORA DIST. | 1,205 | 1,256 | 51 | 4.23 |
| RED LAKE NO. 1 | 128 | 95 | - 33 | -25.78 |
| FORT FRANCES - RAINY RIVER DIST. | 812 | 659 | -153 | -18.84 |
| GERALDTON DIST. | 860 | 854 | - 6 | - 0.70 |
| LAKEHEAD DIST. | 6,723 | 7,023 | 300 | - 4.46 |
| NORTH OF SUPERIOR DIST. | - | 1,264 | - | - |

Source: Annual Reports of the Minister of Education of Ontario

CHANGE IN SECONDARY SCHOOL ENROLMENT BY BOARD
FOR NORTHERN ONTARIO, 1971-76

| NAME OF BOARD | ENROLMENT | | CHANGE IN NUMBER | CHANGE IN PERCENT |
|-----------------------------|-----------|--------|---------------------|----------------------|
| | 1971 | 1976 | | |
| <u>MIDNORTHERN</u> | | | | |
| CENTRAL ALGOMA | 435 | 749 | 314 | 72.18 |
| CHAPLEAU | 412 | 364 | - 48 | -11.65 |
| ESPANOLA | 1,125 | 1,150 | 25 | 2.22 |
| HORNEPAYNE | 80 | 89 | 9 | 11.25 |
| MANITOULIN | 924 | 931 | 7 | 0.76 |
| MICHIPICOTEN | 580 | 580 | 0 | 0.00 |
| NORTH SHORE | 1,669 | 1,731 | 62 | 3.71 |
| SAULT STE. MARIE | 6,926 | 6,968 | 42 | 0.61 |
| SUDBURY | 14,729 | 15,040 | 311 | 2.11 |
| <u>NORTHEASTERN</u> | | | | |
| COCHRANE - IROQUOIS FALLS | 1,829 | 1,800 | - 29 | - 1.59 |
| HEARST | 806 | 813 | 7 | 0.87 |
| JAMES BAY - LOWLANDS S.S.B. | - | 156 | - | - |
| KAPUSKASING | 2,144 | 2,271 | 127 | 5.92 |
| KIRKLAND LAKE | 1,861 | 1,707 | -154 | - 8.28 |
| MUSKOKA | 2,536 | 2,835 | 299 | 11.79 |
| NIPISSING | 7,282 | 7,467 | 185 | 2.54 |
| EAST PARRY SOUND | 1,257 | 1,351 | 94 | 7.48 |
| WEST PARRY SOUND | 1,358 | 1,367 | 9 | 0.66 |
| TIMMINS | 3,855 | 3,773 | - 82 | - 2.13 |
| TIMISKAMING | 2,610 | 2,578 | - 32 | - 1.23 |
| <u>NORTHWESTERN</u> | | | | |
| ATIKOKAN | 663 | 603 | - 60 | - 9.05 |
| DRYDEN | 1,597 | 1,866 | 269 | 16.84 |
| FORT FRANCES - RAINY RIVER | 1,728 | 1,661 | - 67 | - 3.88 |
| GERALDTON | 666 | 711 | 45 | 6.76 |
| KENORA | 1,742 | 1,675 | - 67 | - 3.85 |
| LAKE SUPERIOR | 954 | 968 | 14 | 1.47 |
| LAKEHEAD | 9,815 | 9,603 | -212 | - 2.16 |
| NIPIGON - RED ROCK | 539 | 470 | - 69 | -12.80 |

Source: Annual Reports of the Minister of Education of Ontario

school (within walking distance) that any change is upsetting when an accepted community-school-centre is threatened.

The uneven sharing of the burden, (some areas booming, some shrinking and some hardly noticing the pinch) has probably aroused more discomfort, anger and distrust than anything else, despite the efforts of the Ministry of Education to alleviate the distress. It is only human to display resentment at what seems at first to be an injustice: "Why me, and not you?" has been the cry heard under such circumstances from times immemorial. These attitudes won't change. But perhaps the more detailed tables and charts in the appendix and in the Statistical Appendix, to be issued separately, will help make it clearer that these things happened because of the circumstances. No one, not even the provincial or federal government has been picking on particular areas in these cases and treating them unfairly.

In some cases, such as in Etobicoke, the explanation is simply that the former children grew up and moved out, and many families with young children moved out to adjoining suburbs, leaving the Etobicoke system "holding the bag" of empty classrooms, vacant schools and surplus or redundant teachers. Prime examples of such problem centres are the City of Toronto, which according to the 1971 and the 1976 census results lost not only children but dropped in total population from 712,786 to 633,318, and Windsor, which dropped from 203,300 population to 196,526, adults as well as children. Double blows such as those really hurt, and practically all of the big cities in Canada are suffering in the same way.

The Present and the Future

But the past we know, and have survived; it is the future which is unknown and which, not knowing what it may bring, we may fear. Let us see now what the next decade probably holds in store for us in the enrolment arena.

First, however, let us look at the whole period of decline from 1971 to 1986, by counties and districts, in Tables 3.10 to 3.12 and the maps of Charts 3.8 to 3.10, for public elementary schools, Roman Catholic separate schools and secondary schools, and at the provincial level only, for the Franco-Ontarian schools in Tables 3.16 and 3.17 and line graphs in Chart 3.11.

There is no disguising the fact that some areas of the province, such as northern Ontario, northeastern Ontario and southwestern Ontario, will continue to be hit hard at the elementary and secondary levels, while parts of central Ontario will continue to expand. Generally speaking, too, the enrolment in the French elementary school will decline, but for the most part continue to grow in the secondary schools (partly, I suppose, because many of them have begun operation but recently).

Zeroing in on the next decade, 1976 to 1986, although only nine years of it are left to go, we can see from the bar graphs for public schools, separate schools and secondary schools (Charts 3.12 to 3.14), that for the elementary schools in general the decline will continue, but severely in only relatively few of the regions. A word of explanation about those bar graphs: the counties and districts are listed in alphabetical order, with the large cities at the bottom of the list, and the percentage decline or growth is indicated not only by colour (red for decline, blue for growth) but by position of the bar at the left or right, respectively, of the centre line of stability (i.e., no change). The tables can, of course, be read as indicated, for numbers and for percentages. The maps used colours to indicate both kind (plus or minus) and position (geographically) of the change.

Fortunately most secondary schools have still a year or two left before the decline becomes severe, and can prepare properly to cushion

Chart 3.8

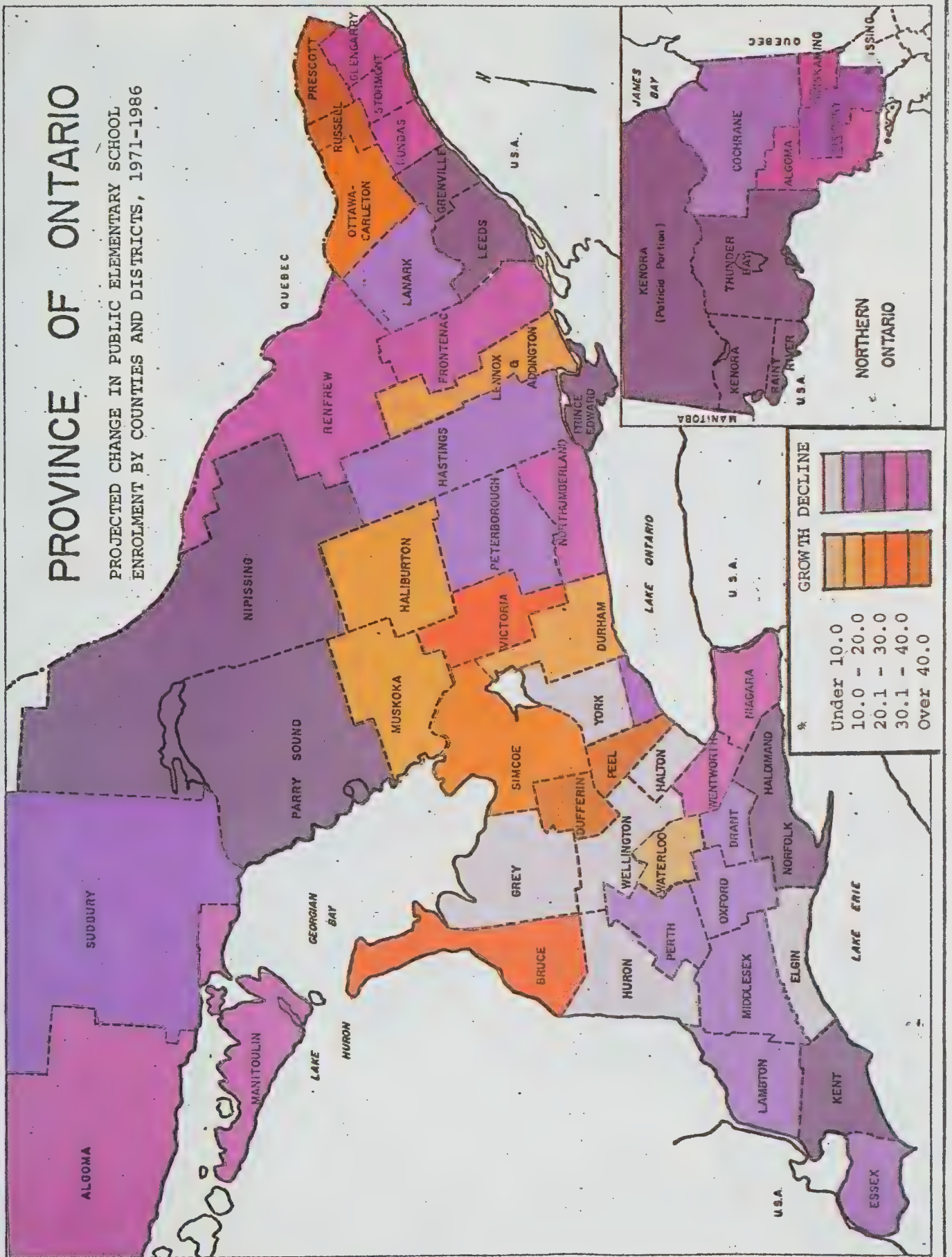
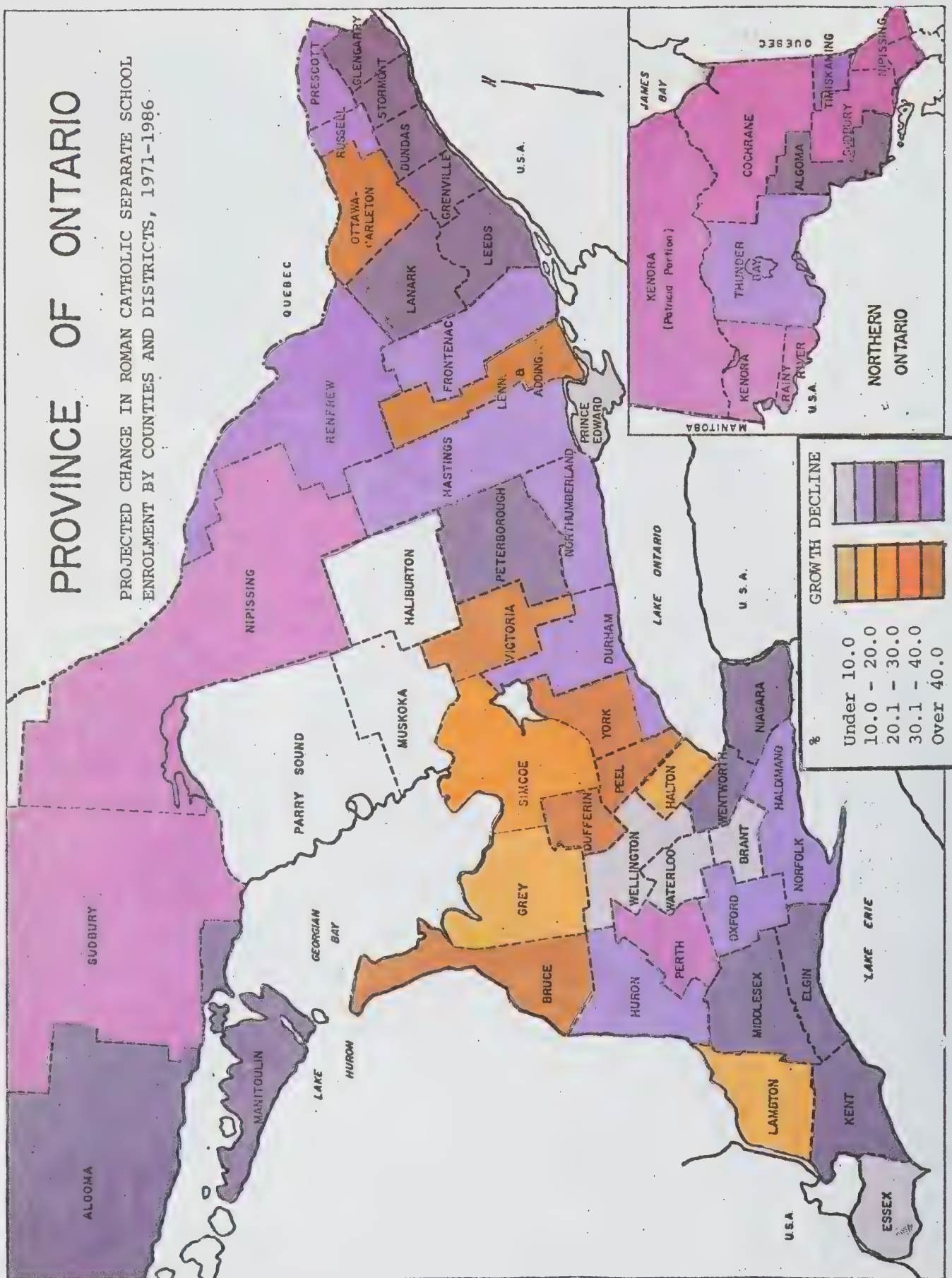


CHART 3.9

PROVINCE OF ONTARIO

PROJECTED CHANGE IN ROMAN CATHOLIC SEPARATE SCHOOL
ENROLMENT BY COUNTIES AND DISTRICTS, 1971-1986



PROVINCE OF ONTARIO

PROJECTED CHANGE IN SECONDARY SCHOOL ENROLMENT
BY COUNTIES AND DISTRICTS, 1971-1986

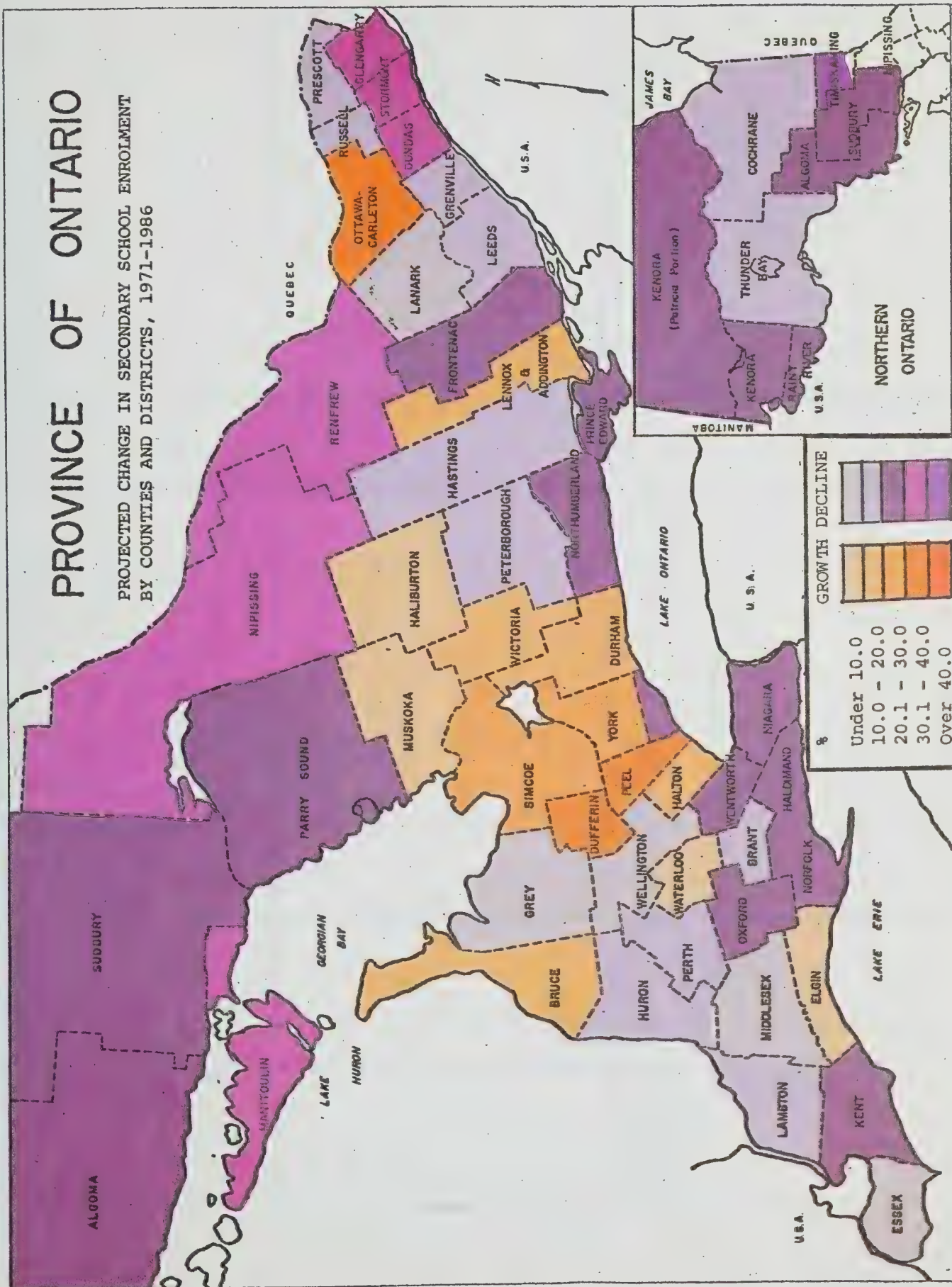


TABLE 3.16
PROJECTED TOTAL ENROLMENT IN FRENCH LANGUAGE ELEMENTARY SCHOOLS IN ONTARIO 1978 TO 1986

| ACADEMIC YEAR BEGINNING | K.G. (Jr. & Sr.) | GR. 1 | GR. 2 | GR. 3 | GR. 4 | GR. 5 | GR. 6 | GR. 7 | GR. 8 | GR. 9 | GR. 10 | SPECIAL EDUCATION | TOTAL |
|----------------------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----------------------|-------|
| 1978 | 11263 | 7379 | 7174 | 6914 | 6766 | 6642 | 6709 | 7099 | 7976 | 414 | 286 | 1675 | 70297 |
| 1979 | 11299 | 7179 | 7040 | 7065 | 6834 | 6728 | 6578 | 6621 | 6813 | 387 | 298 | 1621 | 68463 |
| 1980 | 11438 | 6954 | 6849 | 6933 | 6982 | 6796 | 6663 | 6492 | 6354 | 330 | 279 | 1876 | 67946 |
| 1981 | 11161 | 7039 | 6634 | 6745 | 6852 | 6943 | 6731 | 6577 | 6230 | 306 | 238 | 1595 | 67051 |
| 1982 | 11147 | 6869 | 6715 | 6533 | 6666 | 6813 | 6876 | 6644 | 6311 | 301 | 220 | 1513 | 66608 |
| 1983 | 11247 | 6860 | 6553 | 6613 | 6457 | 6628 | 6748 | 6788 | 6376 | 304 | 217 | 1564 | 66355 |
| 1984 | 11393 | 6922 | 6545 | 6453 | 6535 | 6420 | 6565 | 6662 | 6513 | 306 | 219 | 1551 | 66084 |
| 1985 | 11520 | 7011 | 6604 | 6445 | 6377 | 6498 | 6359 | 6482 | 6392 | 312 | 220 | 1538 | 65758 |
| 1986 | 11520 | 7089 | 6689 | 6503 | 6369 | 6341 | 6436 | 6279 | 6220 | 305 | 225 | 1531 | 65507 |

Source: CODE.

TABLE 3.17

PROJECTED ENROLMENT IN FRENCH LANGUAGE SECONDARY SCHOOLS IN ONTARIO 1978 TO 1986

| YEAR | GRADE 9 | GRADE 10 | GRADE 11 | GRADE 12 | GRADE 13 | TOTAL |
|------|---------|----------|----------|----------|----------|--------|
| 1978 | 8278 | 7552 | 6650 | 5687 | 1917 | 30,084 |
| 1979 | 7742 | 7616 | 6419 | 5520 | 1848 | 29,145 |
| 1980 | 6613 | 7123 | 6474 | 5328 | 1794 | 27,332 |
| 1981 | 6167 | 6084 | 6055 | 5373 | 1732 | 25,411 |
| 1982 | 6047 | 5674 | 5171 | 5026 | 1746 | 23,664 |
| 1983 | 6125 | 5563 | 4823 | 4292 | 1633 | 22,436 |
| 1984 | 6189 | 5635 | 4729 | 4003 | 1395 | 21,951 |
| 1985 | 6322 | 5694 | 4790 | 3925 | 1301 | 22,032 |
| 1986 | 6204 | 5816 | 4840 | 3976 | 1276 | 22,112 |

Source: CODE.

CHART 3.11
ACTUAL AND PROJECTED ENROLMENT IN FRENCH LANGUAGE SCHOOLS IN ONTARIO

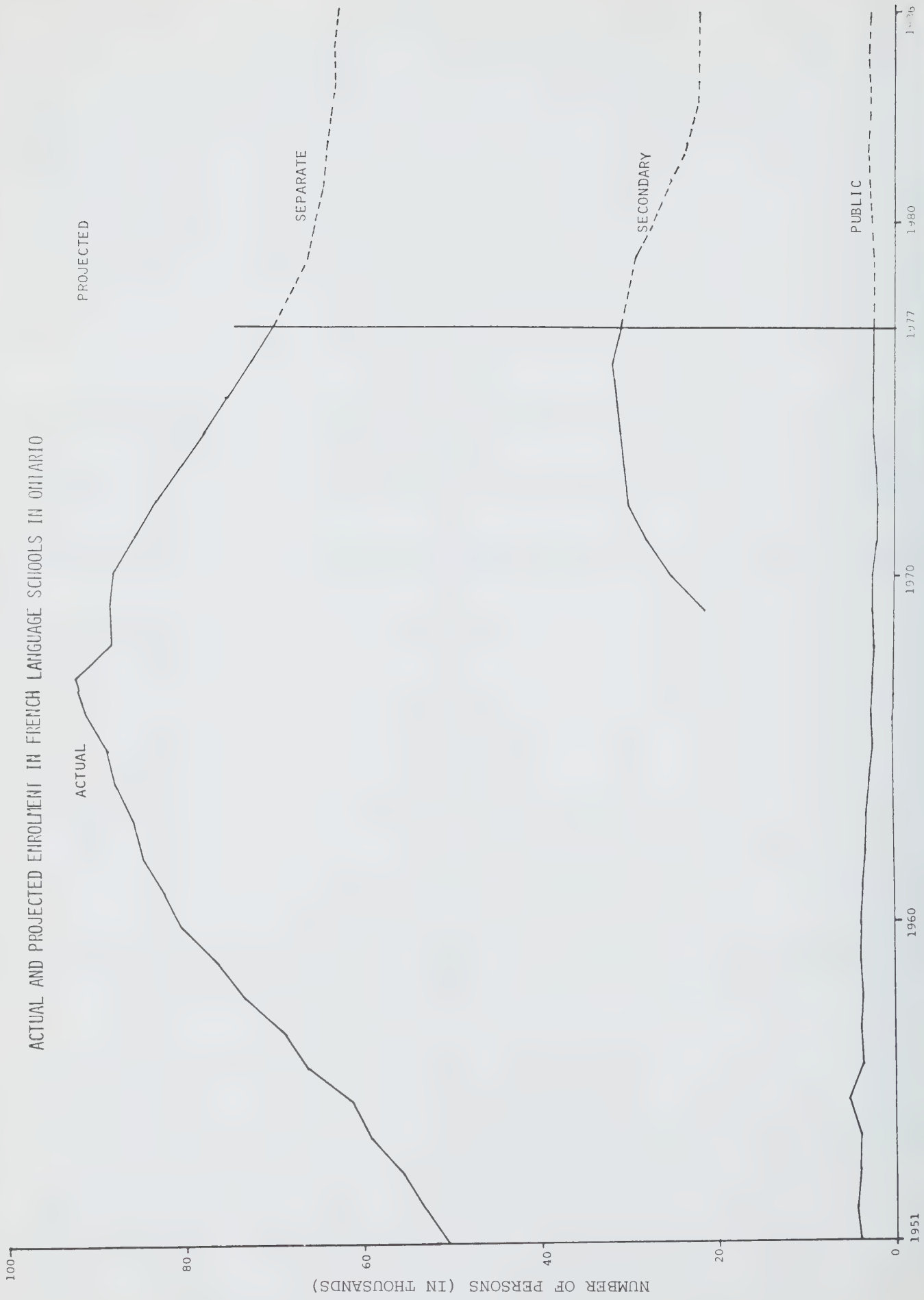


CHART 3.12

ONTARIO: PUBLIC SCHOOL ENROLMENT, 1974-1986
THE DECADE OF PROJECTED DECLINE

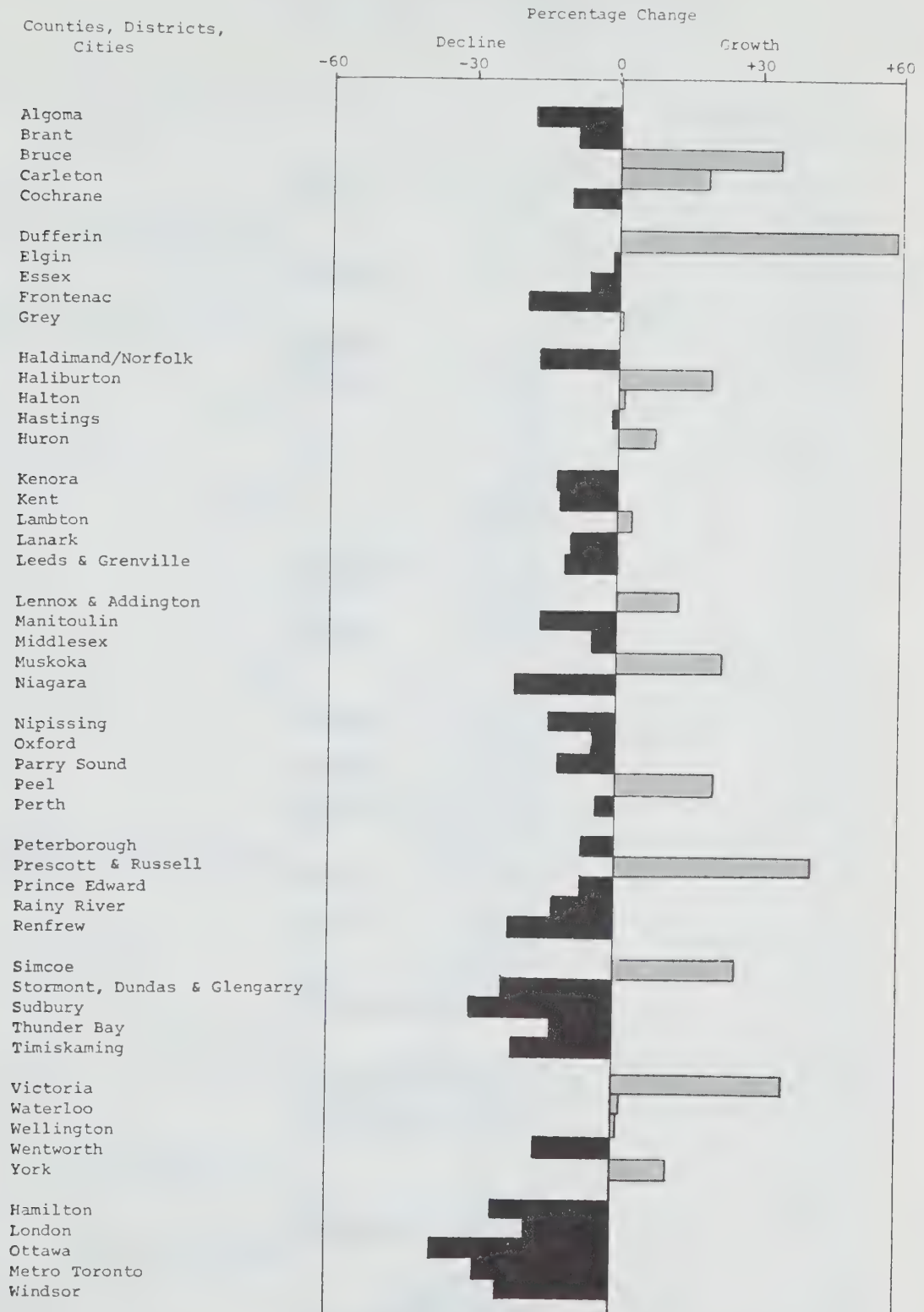


CHART 3.13

ONTARIO: ROMAN CATHOLIC SEPARATE ENROLMENT, 1976-1986
THE DECADE OF PROJECTED DECLINE

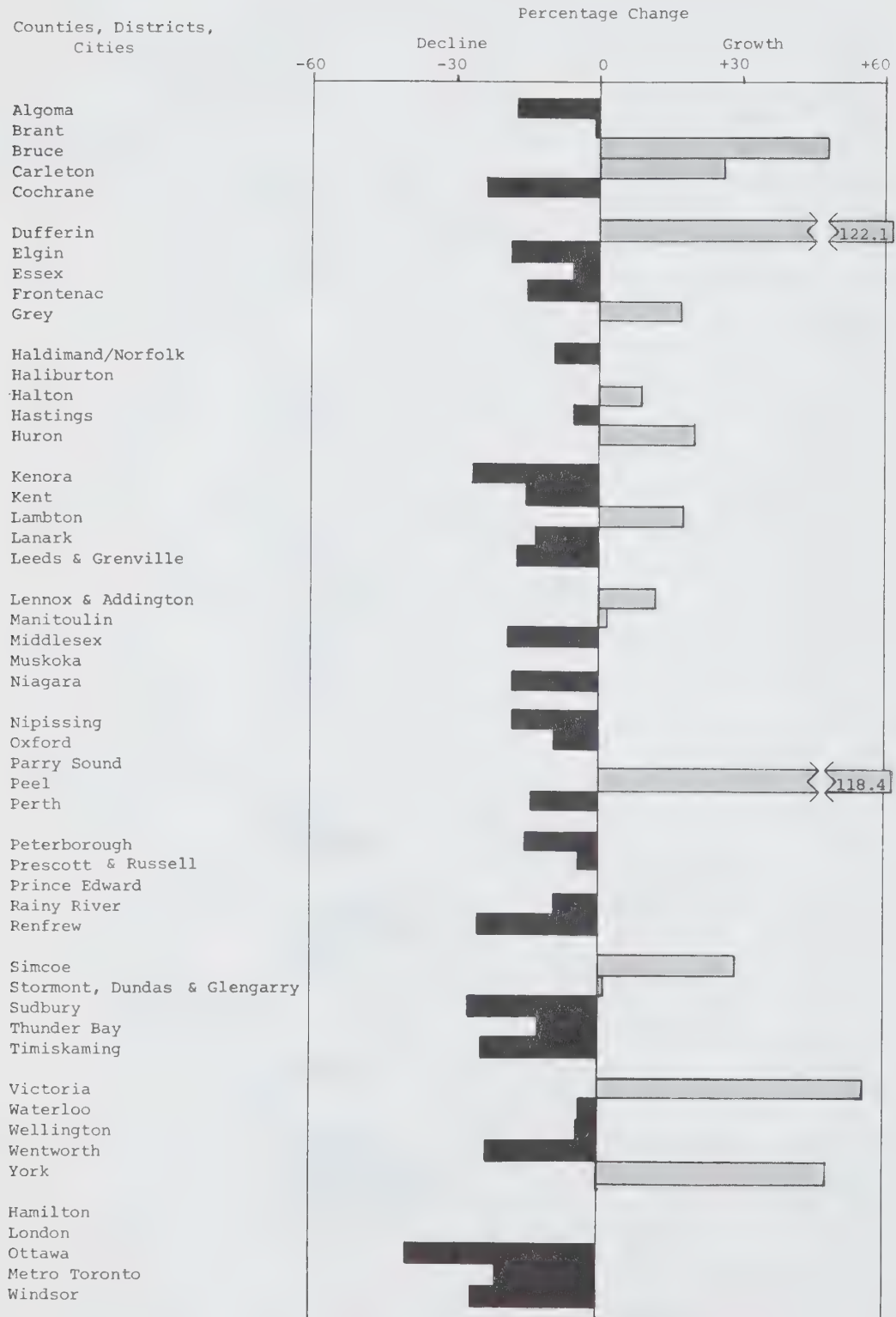
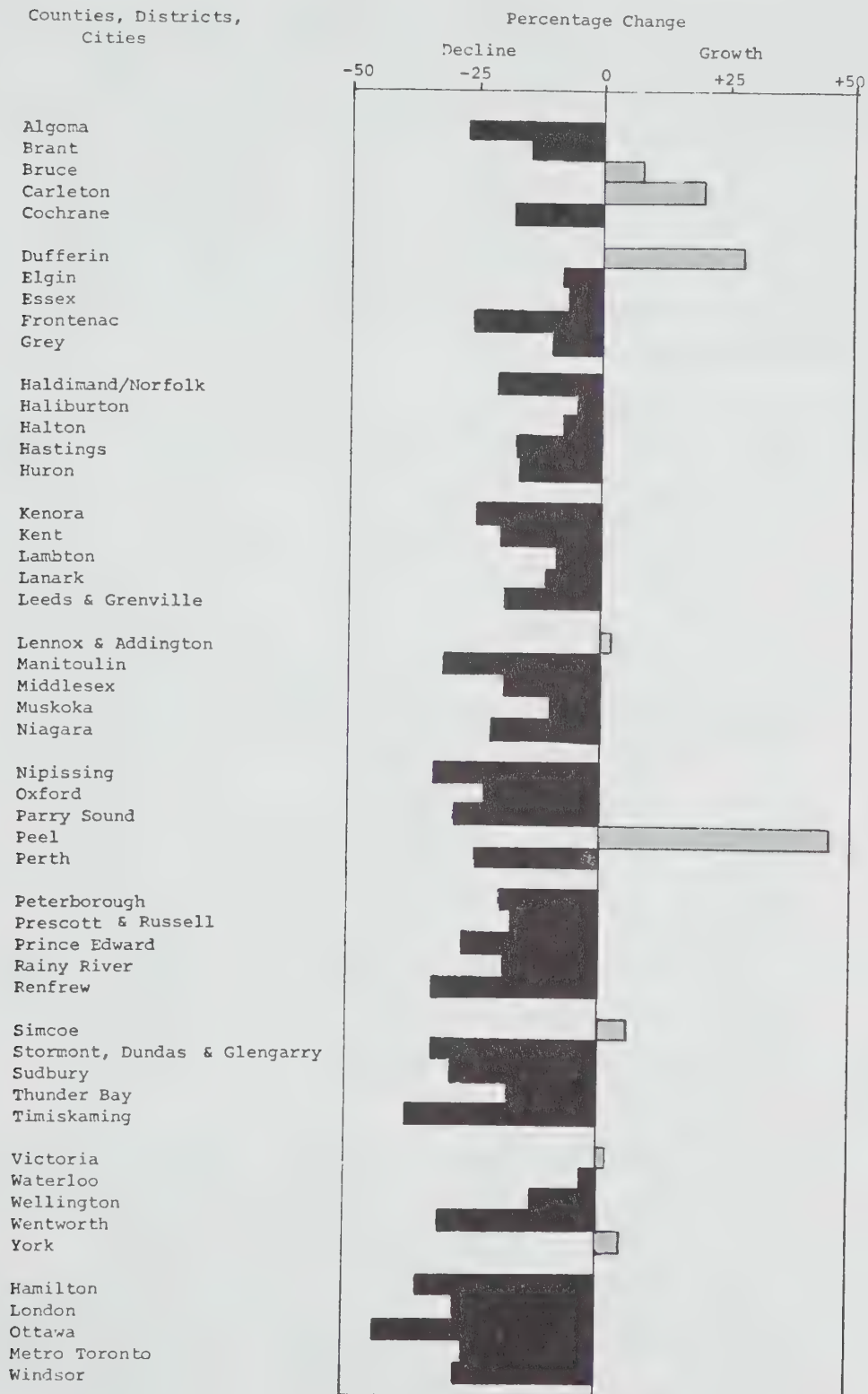


CHART 3.14

ONTARIO: SECONDARY SCHOOL ENROLMENT, 1976-1986
THE DECADE OF PROJECTED DECLINE



the worst of the impact by capitalizing upon the experience gained and lessons learned in the elementary school panel.

While the next eight years will be very rough ones for our secondary schools, at least we know that the worst of the decline will by then have passed. A period of relative stability and steady but not severe declines (except in a few areas where exceptional circumstances exist, as in Sudbury) should continue until the late 1990's or even beyond 2001. More will be known and reported about the long-term future when we secure the special age distributions from Statistics Canada and the final reports being prepared for us by the TEIGA research group.

As a summary, we show in Table 3.18 the enrolment in public schools, separate schools, total elementary schools and secondary schools from 1967 to 1986.

Note in the first column, that steadily increasing total population. Observe then that public school enrolment peaked at 1,047,055 in 1970, but will drop to 830,425 by 1986, a decline of over 216,000 pupils or 20.7% for the province as a whole. (In using these provincial totals, however, one must remember that some areas gained and others lost very heavily.) For the Roman Catholic separate schools the peak in enrolment came as late as 1975, at 427,853 pupils, and is anticipated to drop to only 390,267 by 1986, a decline of 37,586 pupils or 8.8%.*

Accordingly, for elementary schools as a whole, the peak enrolment year was 1970 with 1,465,448 pupils, with an anticipated decline to 1,220,692 in 1986, a drop totalling 244,756 pupils or 16.7%. For the secondary schools, the peak year should be 1977 at 615,232 students, and the decline should reach 502,728 by 1986, a loss of 112,504 students or 18.3%

In some areas, such as Etobicoke, North York, Toronto and Ottawa, it is anticipated by the school authorities that the losses may reach as high as 50% in both public elementary and secondary schools.

*Not all the factors causing the difference between public and separate schools are known. The slower decline in separate schools may have resulted from services being expanded to include more Catholic children, especially junior and senior kindergartens and in grade 9 and 10. The acceptance of family planning came later.

TABLE 3.18

TWENTY YEARS OF POPULATION AND SCHOOL ENROLMENT GROWTH
 ONTARIO: 1967 TO 1986

| YEAR | TOTAL POPULATION | SCHOOL ENROLMENT | | | TOTAL SECONDARY SCHOOL | GRAND TOTAL |
|------|---------------------|-------------------|----------|-----------|------------------------------|----------------|
| | | ELEMENTARY SCHOOL | | TOTAL | | |
| | | PUBLIC | SEPARATE | | | |
| 1967 | 7,127,000 | 1,002,555 | 402,497 | 1,405,052 | 463,736 | 1,868,788 |
| 1968 | 7,262,000 | 1,021,676 | 408,914 | 1,430,590 | 500,807 | 1,931,397 |
| 1969 | 7,385,000 | 1,042,561 | 413,556 | 1,456,117 | 530,679 | 1,986,796 |
| 1970 | 7,551,000 | 1,047,055 | 418,433 | 1,465,448 | 556,913 | 2,022,401 |
| 1971 | 7,703,000 | 1,034,703 | 422,137 | 1,456,840 | 574,520 | 2,031,360 |
| 1972 | 7,834,000 | 1,022,935 | 422,166 | 1,445,101 | 583,013 | 2,028,144 |
| 1973 | 7,939,000 | 998,668 | 424,217 | 1,422,885 | 585,725 | 2,008,610 |
| 1974 | 8,094,000 | 977,545 | 427,294 | 1,404,839 | 589,650 | 1,994,489 |
| 1975 | 8,226,000 | 961,625 | 427,853 | 1,389,478 | 605,160 | 1,994,638 |
| 1976 | 8,264,000 | 937,292 | 422,793 | 1,360,085 | 613,055 | 1,973,140 |
| 1977 | 8,409,000 | 912,210 | 416,740 | 1,328,950 | 615,232 | 1,944,182 |
| 1978 | 8,529,000 | 886,305 | 409,899 | 1,296,204 | 613,928 | 1,910,132 |
| 1979 | 8,653,000 | 869,342 | 404,663 | 1,274,005 | 601,903 | 1,875,908 |
| 1980 | 8,778,000 | 858,990 | 400,777 | 1,259,767 | 579,416 | 1,839,183 |
| 1981 | 8,904,000 | 852,560 | 397,657 | 1,250,217 | 552,799 | 1,803,016 |
| 1982 | 9,032,000 | 847,346 | 396,193 | 1,243,539 | 527,629 | 1,771,168 |
| 1983 | 9,161,000 | 841,508 | 394,653 | 1,236,161 | 511,302 | 1,747,463 |
| 1984 | 9,291,000 | 834,912 | 392,812 | 1,227,724 | 506,553 | 1,734,277 |
| 1985 | 9,421,000 | 830,897 | 391,219 | 1,222,116 | 505,811 | 1,727,927 |
| 1986 | 9,549,000 | 830,425 | 390,267 | 1,220,692 | 502,728 | 1,723,420 |

A C T U A L

P R O J E C T E D

Structural changes may be made to accommodate the shift, such as closing out all senior public schools and junior high schools, for instance. Indeed, one separate school board in Eastern Ontario has already removed the special senior school of grades 7 and 8 and moved the pupils back to the other schools in order to preserve community schools. A proposal for the City of Toronto, being discussed by the Director, Duncan Green, would attempt to free the program entirely from the structural arrangements of the system, and thus achieve a very high degree of flexibility, probably sufficient to solve satisfactorily many of the pressing problems which at the moment face that system.

I freely and frankly admit, and gladly, that I am already greatly impressed by the calm and confident manner in which most of our boards and their staff are facing up to their problems, and by the extraordinary degree of ingenuity they exhibit in devising plans suitable for almost any conceivable set of exceptional circumstances. There is no evidence whatsoever to indicate that the boards and their officials are trying to evade the issues or hesitate to place the full facts before their ratepayers. When the crunch comes, as from time to time it must, they stand up to be counted without flinching.

As a final example, I have given in Table 3.19 the enrolment picture for the Vancouver School Board, forwarded to me some time ago by the responsible officials there who prepared the projections for the board. Despite the fact that they face a slash of more than 55%, plans are being developed in advance, calmly and methodically, to cope with each and every situation as it arises so that no real crisis condition will ever develop. I cite this case and this approach because it fits in so well with what is being done here in Ontario. We can't avoid the "crunch", but we can foresee the problems and prepare adequate solutions. We will probably gain immeasurably through the process of tackling and solving these together, and emerge stronger even if a little leaner at the end of the trials.

One thing is clear, and from this we can take pride: educators at all levels, from the seasoned trustee to the eager beginning teacher,

TABLE 3.19

VANCOUVER SCHOOL BOARD ACTUAL & PROJECTED
ENROLMENT

| School Year Beginning | Enrolment (Excluding Special Education) | | | | | |
|-----------------------------|----------------------------------------------|-------|--------------------------|-------|-----------|-------|
| | Elementary Kindergarten and Grades 1-7 | | Secondary Grades 1-12 | | Total | |
| | Enrolment | Index | Enrolment | Index | Enrolment | Index |
| A 1966 | 45,114 | 1000 | 24,901 | 896 | 70,015 | 988 |
| C 1971 | 43,084 | 955 | 27,779 | 1000 | 70,863 | 1000 |
| U 1976 | 34,402 | 763 | 27,122 | 976 | 61,524 | 868 |
| A 1980 | 29,228 | 648 | 22,081 | 795 | 51,309 | 724 |
| L 1985 | 25,128 | 557 | 18,480 | 665 | 43,608 | 615 |
| P 1990 | 22,635 | 502 | 15,147 | 545 | 37,782 | 533 |
| R 2000 | 19,270 | 427 | 12,253 | 441 | 31,523 | 445 |
| O | | | | | | |
| J | | | | | | |
| E | | | | | | |
| C | | | | | | |
| T | | | | | | |
| E | | | | | | |
| D | | | | | | |

are determined to preserve the quality of our educational programs. We, the adults, may suffer a bit: the children shall not.

Questions and Issues

1. The crucial question at this stage is that probable trend in fertility rates: to continue downwards? to level off? or to rise again? Possibly periodic surveys of expected family size, on a sample basis as part of an opinion poll, should be conducted by TEIGA or Statistics Canada, or jointly.
2. As enrolment of regular pupils declines:
 - (a) Will the provincial government expect to provide smaller amounts of assistance through general legislative grants?
 - (b) Can the local ratepayer expect his school taxes to decrease proportionately, i.e., that unit costs will not increase and total school expenditures will decrease in proportion to the decline in enrolment?
3. Will our policy be to extend services to the regular students, through smaller classes, more options and special programs?
4. Will our policy be to extend services to other groups, and hence maintain or increase total enrolment? Can we expect services for
 - a) nursery classes for 2-3 year olds?
 - b) day-care for six-month to two-year olds?
 - c) adults in the labour force?
 - d) adults for recreational or cultural purposes?
 - e) senior citizens for recreation and interest?
5. Should school programs be expanded, for all groups, to cover recreation, hobbies, special interests, motor skills, etc.?
6. Should education services be provided outside the school, for
 - a) drop-in centres?
 - b) work-study programs?
 - c) education in business and industry?
7. If school programs must be reduced because of declining enrolments, what should be cut and why?
8. Is there a basic or minimum program which must be provided even in small schools, regardless of cost?

Chapter 4

Declining Enrolments and the School Curriculum

I.

INTRODUCTION

An expanding school population coupled with an expanding economy over the years has given rise to a highly diversified and, in the secondary school, a highly specialized set of curriculum options. The one-room school is virtually a thing of the past, now that we have multiple rooms for single grades in the elementary school and multiple versions of a single course at the secondary school. Complexity and diversity are one of the marks of the curriculum of our schools.

This feature has led to the Commission's central concern for the effects of declining enrolments on the curriculum. The effects of declining enrolments on school buildings, on finance, on teachers, on the tax base and so forth will all have effects on the curriculum, and thus on the education of our children. We need to be sure as we plan the future and realistically take into account declining school population and declining resources that the curriculum concerns of students and the education aims of our society are not overlooked, not an easy task in today's circumstances.

II.

THE HISTORY OF ONTARIO CURRICULUM

The echoes of a shift away from an optimistic growth-oriented society are heard in concerns for unemployment, rights, and protection of workers, social welfare and, in education, in calls for returns to the basics amid an inordinately political climate of debate on schooling.⁹ This critical climate, combined with the pressures of declining enrolments and reduced resources, would make it easy to propose plans which sharply limit curriculum flexibility and diversity. The Commission believes, however, that it is possible to interpret our current situation only by an examination of our past. Then, from the history, we can see what it is we have gained and lost over the years, and we can gain a better understanding of what our next step should be.

CURRICULUM, VALUES AND A POPULAR PHILOSOPHY OF SCHOOLING

The curricula of our schools have a curious quality in that they do not spring from a science of schooling, but rather from public, professional bureaucratic and school-system deliberation over what ought to be taught to children. This process of developing curricula is essentially political and represents the ebb and flow of value, the testing and counter-testing of opinion. This deliberative process of values clarification which results in the curriculum is consistent with the nature of curriculum questions which, at bottom, are questions of value. What knowledge is of most worth? What shall we teach? How shall it be taught? What are the basics? What emphasis should be placed on the basics? How much trust should be placed in the teacher? Who shall develop the curricula? These questions are not solved scientifically or technologically, although both those methods may be used to reach value decisions. Thus, the science of education may study the nature of inquiry teaching, but it is another matter to determine whether or not one should teach by inquiry. Technologies may be designed for, say, the writing of curriculum materials, the design of professional development workshops or the functioning of a school, but the problems of what curriculum materials

⁹Williams, Thomas R., "Leaders or Lemmings?" Education Canada, Vol. 16, Summer 1976, 28-35.

should be used, the content of a professional development workshop or the need for the school are all questions of belief and value.

Science and technology, of course, are not easily separated from our beliefs about education. They interact with and modify them. If, for example, there is solid research on inquiry learning and if there is a well-designed instructional technology for teaching it that can be shown to be of value, then we will tend to shift our teaching toward that purpose. Ends and means are not, in short, sharply separated in the curriculum. Still it is the ends that ultimately govern our views of schools. Our image of the educated man and our image and desires for society pull us forward. The call for the basics is an example. In its simplest form this is a plea for knowledge and skills to be held in common by all members of society. Science will not settle the matter of whether this is good, bad or indifferent for society. It is a question of value. The rights of teachers and parents, the authority of the school and the degree of centralization or decentralization in our governance and control of education are all equally questions of value.

Our curriculum history is, then, the history of what we value, and of how effectively our values have been realized in school practices. Roughly speaking, the history of curriculum is a history of our popular philosophy of schooling. To the extent that we are right in viewing curriculum and its history in this light, it also follows that the overriding issues at stake in the effects on curriculum of declining enrolment are philosophical. It is true that we can drop a subject here and a teacher there and still not tamper with the underlying value system. But large scale proposals for curriculum change along these lines will, inevitably, affect our curricular value system, our popular philosophy.

MAJOR HISTORICAL MOMENTS

There is no comprehensive curriculum history of the Province of Ontario available but such a study for 1937/75 has been commissioned and will be published later as an appendix. The very brief history that is presented below, however, has been drawn piecemeal from a variety of sources. Fleming's own

volumes, Ontario's Educative Society¹⁰ and Education: Ontario's Preoccupation¹¹ were main resources. Others were a Ministry of Education memorandum,¹² two speeches by Kel Crossley,^{13,14} former director of curriculum at the Ministry of Education, an article by Doris Ryan¹⁵ on the credit system in Ontario which, in turn, drew heavily on a doctoral thesis by John Stapleton,¹⁶ a memorandum prepared for the Task Force by Ken Prueter, and a paper prepared for the Task Force by Wilf Wees, entitled "Teacher Autonomy and Lifelong Learning." Numerous bits and pieces were collected from a variety of other sources, but the above mentioned constitute the main ones.

There have been many acts and events, people and curriculum proposals involved over the years, and the selection of the ones we have chosen to highlight will, undoubtedly, be questioned by some. There are those who will believe that important historical moments have been slighted or missed. Nevertheless, the ones chosen do permit us to draw a picture of a progressively evolving curriculum, which, though interrupted from time to time by cycles and events, nonetheless is one which is currently rooted in beliefs and values, in an overall philosophy, that goes back many years. The major moments in Ontario's curricular history as we see them are summarized in Table 4.1.

For brevity's sake we shall reduce our discussion of Ontario's evolving curriculum philosophy to three components: the place of schooling in the education of the child, the aims of education and curriculum development.

¹⁰Fleming, W.G., Ontario's Educative Society, 7 vols., (Toronto: University of Toronto Press, 1971).

¹¹Fleming, W.G., Education: Ontario's Preoccupation, (Toronto: University of Toronto Press, 1972).

¹²Young, Don, "A Brief Summary of Curriculum Revision in the 1950's," (Toronto: Department of Education, mimeo, November 25, 1974).

¹³Crossley, J.K., "Curriculum Development in Ontario," speech to Northern Ontario Public School Principals' Association, October, 1971.

¹⁴Crossley, J.K., "Planning a Creative Curriculum," speech to London Education Officials' Conference, February, 1970.

¹⁵Ryan, Doris W., "Policy Making in Secondary School Curriculum: The Rise and Demise of the Individualized System," paper presented to Institute for Educational Leadership, (Toronto: Mimeo, October, 1977).

¹⁶Stapleton, John, "The Politics of Educational Innovations: A Case Study of the Credit System in Ontario," unpublished Ph.D. Thesis, Univ. of Toronto, 1974.

TABLE 4.1
MAJOR HISTORICAL
MOMENTS IN ONTARIO'S CURRICULAR HISTORY

| DATES | THE MOMENT |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1846-1876 | THE RYERSON ERA |
| 1871 | ACT TO IMPROVE THE COMMON AND GRAMMAR SCHOOLS ¹⁷ |
| 1976-1930'S | CONTINUE CENTRALIZATION OF CURRICULUM CONTENT AND CONTROL |
| 1937 | PROGRAM OF STUDIES FOR GRADES 1-6 (LITTLE GREY BOOK) ¹⁸ GRADE SYSTEM INTRODUCED |
| circa 1945 | SCHOOL SYSTEM BEGINS TO EXPAND RAPIDLY |
| 1949 | MEMORANDUM RE: REVISION OF CURRICULA, ONTARIO DEPARTMENT OF EDUCATION (THE PORTER PLAN) ¹⁹ |
| 1950 | REPORT OF THE ROYAL COMMISSION ON EDUCATION IN ONTARIO (THE HOPE COMMISSION) ²⁰ |
| 1950 | MEMORANDUM RE: PROMOTION FROM GRADE 8 AND ADMISSION TO GRADE 9 (CURRICULUM: 2) ²¹ |
| | MEMORANDUM RE: ESTABLISHMENT OF LOCAL COMMITTEES ON CURRICULUM (CURRICULUM: 3) ²² |
| 1951 | CURRICULUM 1:1, INTERMEDIATE DIVISION OUTLINES OF COURSES |
| 1962 | REORGANIZED PROGRAM OF STUDIES FOR ONTARIO SECONDARY SCHOOLS (THE ROBERTS PLAN) ²³ |
| 1963 | DESIGN FOR LEARNING (N. FRYE, ED., JOINT COMMITTEE OF THE TORONTO BOARD OF EDUCATION AND THE UNIVERSITY OF TORONTO) ²⁴ |
| 1968 | ONTARIO, PROVINCIAL COMMITTEE ON AIMS AND OBJECTIVES OF EDUCATION IN THE SCHOOLS OF ONTARIO, <u>LIVING AND LEARNING</u> (THE HALL-DENNIS REPORT) ²⁵ |
| | LEGISLATION ESTABLISHES FRENCH LANGUAGE SECONDARY SCHOOLS IN ONTARIO, ^{25A} |
| 1969 | ADMINISTRATIVE REORGANIZATION OF SCHOOL BOARDS |
| | WILLIAM G. DAVIS, ADDRESS TO THE ONTARIO SECONDARY SCHOOL HEADMASTERS' COUNCIL (THE HSI ADDRESS) (THE CREDIT SYSTEM) ²⁶ |
| 1966-1971 | INTERIM REVISIONS OF P1J1 SERIES OF GUIDELINES (LITTLE GREY BOOK SUPERSEDED) |
| 1970's | PERIOD OF RETRENCHMENT |
| 1976 | SEVEN SECONDARY SCHOOL CREDITS MADE MANDATORY ²⁷ |

¹⁷ONTARIO. LAWS, STATUTES, ETC., AN ACT TO IMPROVE THE COMMON AND GRAMMAR SCHOOLS OF THE PROVINCE OF ONTARIO, 1871. IN J.G. HODGINS, DOCUMENTARY HISTORY OF EDUCATION IN UPPER CANADA (TORONTO: L.K. CAMERON, 1908), PP. 213-223.

¹⁸ONTARIO DEPARTMENT OF EDUCATION, PROGRAM OF STUDIES FOR GRADES 1 TO 6 OF THE PUBLIC AND SEPARATE SCHOOLS, 1937.

¹⁹ONTARIO DEPARTMENT OF EDUCATION, REPORT OF THE MINISTER, 1949 (TORONTO: LEGISLATIVE ASSEMBLY OF ONTARIO SESSIONAL PAPER NO. 12, 1951), P. 9.

²⁰REPORT OF THE ROYAL COMMISSION ON EDUCATION IN ONTARIO, 1950. J.A. HOPE, CHAIRMAN (TORONTO: KING'S PRINTER, 1950).

²¹YOUNG, DON, "SUMMARY OF CURRICULUM REVISION," P. 2.

²²IBID., P. 3.

²³RYAN, "POLICY MAKING IN CURRICULUM," P. 3.

²⁴FRYE, NORTHROP, ED., DESIGN FOR LEARNING, REPORTS SUBMITTED TO THE JOINT COMMITTEE OF THE TORONTO BOARD OF EDUCATION AND THE UNIVERSITY OF TORONTO (TORONTO: UNIVERSITY OF TORONTO PRESS, 1962).

²⁵ONTARIO, PROVINCIAL COMMITTEE ON AIMS AND OBJECTIVES OF EDUCATION IN THE SCHOOLS OF ONTARIO, LIVING AND LEARNING (TORONTO: NEWTON PUBLISHING, 1968).

^{25A}ONTARIO. LAWS, STATUTES, ETC. AN ACT TO AMEND THE SECONDARY SCHOOLS AND BOARDS OF EDUCATION ACT, 1968. 17 ELIZ. 2, CH. 122, PT. 8, STATUTES OF THE PROVINCE OF ONTARIO, 1968.

²⁶DAVIS, W.G., SPEECH ON THE CREDIT SYSTEM TO ONTARIO SECONDARY SCHOOL HEADMASTERS' COUNCIL, MARCH 17, 1969.

²⁷LIND, LOREN, "FAMOUS AFTERNOON ON THE PIER LIMITS STUDENTS' CHOICES," THE GLOBE AND MAIL, JULY 23, 1977, P. 50.

EDUCATION AND SCHOOLING

Since they occurred in a comparatively short time, it is instructive to reflect on the radical changes in our educational system in Canada. As Janzen remarked in the Quance Lectures:

We do not have to look back more than a hundred and fifty years in Canada to find schools provided only by religious and charitable organizations, and by very few others who had the means and the will to support them. The purposes of the scanty education offered were determined by those who provided it. Today we have public schools in all parts of Canada. The people decide what they want and they tax themselves accordingly to support such institutions. Under public control, successive generations decide both the means and the ends of education. Thus a fundamental change has occurred in the control, administration, and character of education.²⁸

It is quite legitimate, even highly desirable, that we continue to debate, criticize and in general improve the curriculum of the schools. Nevertheless, compared to the pioneer period of education in Canada up until the time of the Ryerson era, the criticisms seem to be something like an argument over whether or not to ice the cake. Basic education formerly was provided by the home or perhaps the church, and the schools that did exist were, for the most part, elitist in character. Their purpose was to train leaders who might be expected to enter the professions or to take leadership roles in government.

The Development of Equality of Opportunity

Through the early 1800's some gestures were made in the direction of equality of opportunity for all children. In 1807, An Act to Establish Public Schools in Each and Every District of this Province was passed.²⁹ In consequence of this Act there were, by the late 1830's, about forty or fifty secondary ("grammar") schools in Ontario. Of these, only 13 were public schools, the rest being private. They were all aimed at the development of leadership. During the first quarter of the nineteenth century some attempts were made to centralize the elementary "common" schools, but by 1833 these efforts had been disbanded. Schools of this period were staffed by

²⁸ Janzen, Henry, Curriculum Change in a Canadian Context (Toronto: Gage Educational Publications, 1970), p. 25. *Italics added.*

²⁹ Cited in Ontario Ministry of Education and Ministry of Colleges and Universities, Review of Educational Policies in Canada: Ontario Report, submission to the Organization for Economic Cooperation and Development, (1975), p. 3.

untrained teachers, "frequently retired soldiers or newcomers who were not qualified or trained for more lucrative pursuits."³⁰ There was also very little sense of the rights of all children to an education. In fact, as Janzen notes: "The greatest public support that was given to education during the early 19th century was to the secondary 'grammar' schools, rather than to the elementary 'common' schools".³¹ The 'grammar' schools, were, of course, for the privileged few.

Perhaps the most significant feature of this period, one which bears on the increased opportunity for all children to receive schooling, was the introduction of public financial support for education. Already during this time there was a separation of private and public schooling.

The Ryerson era is perhaps the most significant period in the development of equality of opportunity. Egerton Ryerson is so significant a figure that the Ministries of Education and Colleges and Universities, in their submission to the Educational Review Committee of the Organization for Economic and Cooperative Development (OECD), remarked, "It was he who created the Ontario school system...during the period 1850 to 1870 he persuaded 4000 out of 4400 school boards to finance education entirely from local taxes and thus provide free schools."³² Enrolment in the 'common' schools increased at a rate approximately twice that of the population and the length of time the child spent in school was about twice as long by the end of the Ryerson era.

Perhaps the most significant event in that era was the 1871 Act to Improve the Common and Grammar Schools of the Province of Ontario.³³ This was, according to Fleming, "The first serious effort...to institute a program that would appeal to those who were not bound for the university."³⁴ Compulsory attendance for part of the school year was introduced for the first time and a distinction was made between "collegiate institutes" and "high schools," one leading to the university and one designed for general educational

³⁰Ibid.

³¹Janzen, Curriculum Change, pp. 29-30.

³²Ontario Ministries, Ontario Report, p. 5.

³³Fleming, Education: Ontario's Preoccupation, p. 179.

³⁴Ibid.

preparation. Entrance into one or the other of these secondary school routes was determined by secondary school entrance examinations also provided by the Act. Ryan notes that the elitist history of this time was reflected in the results of the exams: only 22,000 of 85,000 students wrote the grade 8 examination in 1890/91 and of those who wrote only 12,000 passed.³⁵

The concept of equality of opportunity was strengthened again in 1921 when compulsory school attendance was raised to the age of 16. At the same time the number of compulsory subjects throughout schooling was reduced. There are those, of course, who have argued against compulsory attendance on the grounds that students are kept in school for artificial reasons. It is likely, in fact, that at the time the Act was introduced the argument could have been applied with some strength to many rural children. Furthermore, there are those who see compulsory attendance not so much in terms of equality of opportunity but of forced opportunity. And it is true that Ontario, presumably much like other school systems, has tended to put its philosophical beliefs into legal terms. These criticisms of compulsory attendance have, however, less to do with the philosophy than with its implementation. The fact remains that it reflects a belief in schooling for all children.

In 1949 the notion was given still another stimulus when the secondary school entrance examinations were abandoned throughout the province. All students thereafter had two routes available to them: the secondary school graduation diploma and the secondary school honour graduation diploma, the latter being the university oriented route and awarded at the end of grade 13.

Further diversification occurred under the Robarts Plan of 1962 in which a "branch and program" structure for the secondary school was introduced.³⁶ The three branches were arts and sciences, business and commerce, and science, technology and trades. Within each of these branches there were four- and five-year programs. Modifications within each of the branches allowed students to take an attenuated program and to leave school at the end of the compulsory age of 16 if they wished. This reorganized system resulted in about a 10% increase in the percentage of 15- to 19-year olds in school over the period

³⁵ Ryan, "Policy Making in Curriculum," p. 3.

³⁶ Ibid.

1961 to 1968. The overall enrolment picture is provided in Table 4.2. The five-year arts and science route was the main university oriented route and in 1968/69 contained 199,252 students for a total of 42% of those registered in secondary school. The majority, then, registered in other than university oriented programs. In addition, the Robarts Plan attempted to shift public attitude more favorably toward vocational education at the secondary school level. While many were skeptical of this attempt, the curricular argument for it served to give impetus to the creation of the Colleges of Applied Arts and Technology which now appear to have pre-eminence for enabling their certificands to obtain employment.

The tone of equality of opportunity was by now almost complete. For the most part, the schools were now in the business of providing education opportunities for all children up to 16 and some years beyond, rather than acting to sift out the elite. Programs were devised to suit individual student needs.

Four further events rounded out the present development of equality of opportunity as a component of Ontario's curriculum philosophy. These were the abolition of the grade 13 examinations and the combined effect of the Hall-Dennis Report with the secondary school credit system. The fourth was the establishment of French Language secondary schools.

Fleming called the abolition of the grade 13 departmental examination system "one of the landmarks of the 20th century in Ontario education."³⁷ The examinations had been the principal basis for university entrance. They were administered by the Department of Education and were set for the most part by university professors. To the extent, and some believe it to have been considerable, that the examinations sorted students on the basis of socio-economic background as well as on the basis of ability, they ran counter to the concept of equality of opportunity. While it could be argued that anyone could try the examinations, it is also argued that those who passed were the ones who had rich and varied social and home environments. The culturally rich passed the exams and got richer and the culturally poor failed the exams and got poorer.

The last even in our account of the development of equality of opportunity is the joint impact of the Hall-Dennis Living and Learning Report³⁸ with the introduction of Davis' credit system³⁹ and the HSLA⁴⁰ circular

³⁷Fleming, Education: Ontario's Preoccupation, p. 209.

³⁸Ontario Provincial Committee, Living and Learning, 1968.

³⁹Davis, Headmasters' Council speech, 1969.

⁴⁰Ryan, "Policy Making in Curriculum," p. 12.

Table 4.2⁴¹

Evolution of Secondary School Population by "Branch and Program"
Between 1963-64 and 1968-69

| Year | Arts and Science | | | Business and Commerce | | | Science, Technology and Trades | | | | | TOTAL |
|---------|------------------|--------|------|-----------------------|--------|-------|--------------------------------|--------|--------|-------|------|---------|
| | 5 yr | 4 yr | 2 yr | 5 yr | 4 yr | 2 yr | 1 yr | 5 yr | 4 yr | 2 yr | 1 yr | |
| 1963-64 | 218,271 | 7,911 | 355 | 13,012 | 49,569 | 2,575 | 2,988 | 12,741 | 36,715 | 2,466 | 35 | 346,638 |
| 1964-65 | 221,177 | 13,094 | 216 | 15,031 | 58,166 | 2,534 | 3,599 | 15,793 | 42,745 | 2,000 | 22 | 374,462 |
| 1965-66 | 218,711 | 18,371 | 160 | 18,324 | 65,555 | 2,577 | -- | 19,087 | 47,978 | 2,217 | -- | 392,980 |
| 1966-67 | 216,605 | 19,918 | -- | 21,046 | 70,313 | 2,746 | -- | 22,238 | 52,744 | 2,277 | -- | 407,887 |
| 1967-68 | 223,162 | 21,591 | -- | 22,004 | 76,902 | 2,572 | -- | 25,586 | 58,802 | 2,991 | -- | 433,530 |
| 1968-69 | 199,252 | 25,120 | 41 | 25,178 | 80,125 | 2,202 | -- | 29,821 | 64,469 | 3,255 | -- | 469,550 |

Source: Ontario Department of Education, Reports of the Minister

⁴¹ This table, for which data come from the different Reports of the Minister, appears in W. G. Fleming, The Expansion of the Educational System, Vol. 1 of Ontario's Educational Society (Toronto: University of Toronto Press, 1971), p. 115.

for secondary schools, which, while it was originally optional, became required in 1972. The credit system replaced the "branch and program" system with four areas of study - communication, social sciences, pure and applied sciences, and the arts. A credit value was attached to each course and students required 27 of these to qualify for the secondary school graduation diploma. No single course was compulsory, although students were expected to have a balance among the four areas.

Thus, with the abandonment of the grade 13 school-leaving examinations, the introduction of the credit system, and the establishment of French Language secondary schools, the diversity of routes for a student to higher education was immensely magnified. To a certain extent the sorting of students along socio-economic background lines was decreased, since students were now, hypothetically at least, permitted to choose their 27 credits according to their own interests, language, needs and abilities. Predictably, there have been numerous criticisms of this system and newspaper articles, reports and speeches have been written and research studies conducted on educationally related matters. Whatever the weaknesses of such a system, it must be said that the credit system coupled with the abolishment of school-leaving examinations has made a positive contribution to Ontario's concept of equality of opportunity. In addition, it must also be noted that Special Education, Multiculturalism, Bilingualism, and Second Language Learning represent extremely visible Ministry of Education commitments to equality of opportunity.⁴²

The Premier himself recently reinforced this concept. In a synoptic statement in December of 1977, Mr. Davis wrote:

The goal of the Ministry of Education is the attainment of educational quality and equality for all. The Ministry fosters a wide range of opportunities so that every individual may experience a worthwhile education, and may have access to further education experience consistent with his needs and those of society.

The Ministry must ensure, through legislation and other means, the achievement of the following objectives:

⁴²Wells, T.L., Speech on Francophone Rights in Education, to AFCFO, Ste. Adele, Que.: July 21, 1975.
Wells, T.L., Speech on Special Education, to CEC, London, Ont.: November 6, 1976.
Wells, T.L., Statement on New Programs in French as a Second Language, Queen's Park: April 18, 1977.
Davis, W.G., Speech on Multiculturalism and Heritage Languages, to Multicultural Leadership Luncheon, Queen's Park: May 4, 1977.

- (i) A full range of educational, cultural and recreational programmes within its jurisdiction;
- (ii) Qualified personnel for these programmes and activities;
- (iii) Suitable facilities for recognized educational activities; and
- (iv) The equitable distribution of available financial resources to meet the aforementioned objectives. ^{42a}

Broadening the Goals

As this chapter is written, there is very little available which can be used to trace with confidence the development of goals for the Ontario education system. We shall identify certain key developments but it should be noted at the outset that these are restricted primarily to content goals. We have, in fact, commissioned a study of goals, content and otherwise, as reflected in Ministry guidelines and other policy-like documents. Our hunches on what this study will discover are noted at the end of this section on the broadening of goals.

There are numerous ways of organizing and classifying curricular goals. Although writers on curriculum do not agree on the value of any particular classification scheme, almost all of the schemes are valuable in that they draw attention to a variety of purposes beyond the learning of content. It is far too easy to think of curricular goals merely as a listing of the various contents and how they progress through schools, such as the program for science instruction from kindergarten to grade 13. Ontario's curriculum has never been stated so narrowly. In fact, in very recent years a pattern has begun to appear in Ministry of Education documents which tends to spell out a minimum of broad goals for JK-13, and which states aims and objectives for more specific subjects in support documents. Nevertheless, the range of possible goals themselves, perhaps in the form of a possible classification for ordering curricular purposes, has never been adequately advanced, discussed and used as an organizer for Ontario school curriculum. The existence of such classification schemes, indeed, of almost any comprehensive classification scheme, would facilitate discussion over what constitutes the basics, the purpose of teaching any particular item of content, and what content and purposes should be strengthened,

^{42a} Davis, William G., "Political Leaders Tell It the Way They Think It Is," OPSMTF News, December 1, 1977, p. 13.

altered or dropped from the curriculum at a time of declining enrolments. In short, the scope of Ontario's goals for education is a matter at issue.

Consider, for example, the following system recently presented by Foshay at an OISE seminar: intellectual, emotional, social, aesthetic, physical and spiritual.⁴³ Even without a full accounting of this framework it is clear that it provides a more precise basis for considering what should and should not be part of the school curriculum. We hold no brief for this particular classification system, but we do feel that something like it would facilitate our understanding of the curricular goals of schooling.

Our account of the history of curriculum content along with some remarks on other dimensions of the goals of schooling begins with the pre-Ryerson era. Education in the early nineteenth century stressed basic skills like reading, spelling, writing, arithmetic and some grammar, geography and British history. As noted the overriding purpose of the curriculum, at least at the secondary school, seemed to be to separate leaders from the others. As Fleming noted:

What Upper Canada needed for the administration of a colony according to aristocratic principles was a group of young gentlemen who could be readily distinguished from the rest of the population. The administrative skills they needed could be acquired in practice. Thus it did not really matter much what they learned beyond the basics as long as it was reasonably out of reach of most of their fellows.⁴⁴

The curricular goals then, were reasonably clearcut, and stressed basic skills. Furthermore, there was little indication of a belief or faith in the development of the child's intellectual abilities. Curiosity and an inquiring mind, so commonly espoused in our current philosophy of education, were, according to Fleming, considered impudent and warranted punishment. This picture has changed radically over the years.

As early as the middle of the nineteenth century one senior division school listed its content as follows: reading, scripture, sacred geography, history, political economy, dictation, science, writing, drawing, bookkeeping, arithmetic, grammar, composition, geography, map drawing, algebra, geometry, singing and recitation of poetry.⁴⁵ Thus it would appear that very early in Ontario's education history the curriculum was marked by diversity.

⁴³Foshay, A.W., OISE Seminar, February, 1978.

⁴⁴Fleming, Education: Ontario's Preoccupation, p. 177.

⁴⁵Ibid., p. 178.

During the Ryerson era content was expanded and by 1871 contained 19 offerings at the secondary school level. Subjects added included music, temperance, drill and calisthenics, agriculture, natural philosophy consisting of physics, chemistry, geology and physiology, bookkeeping and French.⁴⁶ With the 1871 Act to Improve the Common and Grammar Schools, students not university oriented had a general program of studies consisting of English, commercial work and natural science, while the collegiate institutes offered a classical program.⁴⁷

According to Fleming the first quarter of the twentieth century saw little significant change in the elementary school. At the secondary school level perhaps the most extensive development took place in the technical area with courses such as draughting, industrial design, commerce and finance, and domestic science being added.⁴⁸

Compared with the pre-Ryerson era, the 1930's saw a radical shift in curriculum goals, a shift that was captured in the Little Grey Book guideline for elementary schools.⁴⁹ This shift was part of a progressive movement in North America, England and elsewhere, for which John Dewey was the principal spokesman and intellectual leader.⁵⁰ Dewey held that the aim of schooling is to shape individual development and should be the basis for curriculum planning. The physical, social and intellectual were to be taught in an integrated way. Subject matter content was seen as a means rather than as an end. Thus, the purpose of the study of English and of arithmetic was to aid in thought and communication. It was not so much that Ontario curriculum content was changed by this outlook, but rather that content was seen as the carrier of other goals.

This notion, at the elementary school level, appears to have been consistently maintained throughout subsequent years and is found in the 1971⁵¹ and 1975⁵² versions of the public school guidelines (P1J1) up to grade 6. Perhaps

⁴⁶Ibid., p. 178.

⁴⁷Ibid., p. 179.

⁴⁸Ibid., p. 183.

⁴⁹Young, "Summary of Curriculum Revision", p. 6.

⁵⁰Dewey, John, Experience and Education (New York: Collier Books (1976), 1938).

⁵¹Young, "Summary of Curriculum Revision", p. 6.

⁵²Ontario Ministry of Education, The Formative Years, (Toronto: 1975).

the most notable attempt to shift content into less recognizable forms was found in the "enterprise" method and various versions of "project" methods which have been reasonably widely used. In these approaches an enterprise or project is undertaken, for example, a project on North American Indians, which is then studied from a wide variety of perspectives using English, mathematics and so on as needed. On the whole, however, the traditional content divisions are reasonably easy to identify in the programs of the elementary schools.

The secondary school picture was painted somewhat later. The Hope Commission of 1950, while generally supporting the Little Grey Book's progressive goals for the elementary schools, held that the secondary schools needed to focus their goals more directly on subject matter. A core program was recommended for the first two years of high school and an optional program in the latter two years.

Perhaps the most significant development in secondary school curriculum planning occurred in the period following the mid 1950's. This has been known as the "Sputnik" era since it is commonly assumed that the curriculum activity was triggered by Russian space advances. Beginning with the Physical Science Study Committee in the United States in 1955 and spreading to other subject areas and to other countries, an immense amount of curriculum development took place during the late 1950's and 1960's and, to a certain extent, in the early 1970's. Millions of dollars were spent in developing new curriculum materials and in translating them into other languages. The period was not as spectacular in Canada, which lacked the extensive federal government and private foundation support which characterized development in some other parts of the world. Nevertheless, the spirit of reform in the secondary school was very much a part of the Ontario educational system.

In 1957 the Ontario Teachers' Federation initiated a committee on mathematics and science which gave rise to the Ontario Mathematics Commission.⁵³ Later, the 1963 Design for Learning Report was instrumental in the development of the Ontario Curriculum Institute⁵⁴ and it in turn was connected to the development

⁵³Fleming, Education: Ontario's Preoccupation, p. 192.

⁵⁴Morgan, J.R.H., "The Ontario Curriculum Institute," in Education: A Collection of Essays on Canadian Education, Vol. 5, 1962-1964 (Toronto: W.J. Gage Ltd., 1965), 77-82.

of the Ontario Institute for Studies in Education. The curricular goals stressed during this period were primarily subject matter goals and numerous up-to-date curricula and modern textbooks reflecting modern subject matter were developed. New content was added to the curriculum and specific subject areas were diversified into various levels. For example, biology was given three approaches, for slow learners, for basic introductory biology students and for advanced students.

The Robarts Plan was probably the most important single event that permitted the spirit of secondary school reform to flow through Ontario schools. The "Branch and Program" system provided a structure which permitted a broad range of offerings. The four-year arts and science branch for non-academically oriented students received a great deal of attention, and many new courses, the most notable of which was Man in Society, were developed.

The expansion of secondary school offerings introduced through the Robarts Plan were supported by the Hall-Dennis Report, which promoted progressive education goals into the secondary school, goals which up to that time had been more or less restricted to the elementary division. The abolition of grade 13 leaving examinations along with Davis' credit system further stimulated a wider range and diversity of secondary school curriculum offerings. It was by this time even possible for teachers to request permission for experimental courses not easily fitting into the guideline structure and, for a time, these were more or less readily granted.

At the beginning of this section on expanding curricular goals we remarked that it was difficult to trace clearly goals other than in specific content. Content diversity is, it appears, clearly one of the marks of both the elementary and secondary school curricula. Nevertheless, it is possible to make certain remarks on other goals. In the elementary schools particularly, curricular goal statements appear to have shifted from content statements to the use of content for other purposes. It also appears that this is the intention for the secondary schools as well.

In a memorandum to this Commission, Robinson⁵⁵ notes that it is his belief that Ministry of Education guidelines have progressively added additional

⁵⁵ Robinson, Floyd, Memorandum on "The Scope of Guideline Aims and Objectives," January 17, 1978, p. 2.

objectives in the non-knowledge categories, specifically the last five of the six noted above in our description of Foshay's classification system for goals -- emotional, social, aesthetic, physical and spiritual. Our Commission report on these points is not yet in, but it is our hypothesis that current curriculum guidelines present a comprehensive array of objectives that is consistent with the notion of the broadly educated, self-directed student. Furthermore, as Robinson notes, over the long term the trend has probably been toward more broadly conceived aims which increasingly emphasize intellectual skills, complex intellectual performance, "affective" outcomes such as attitudes, values and beliefs, and some elements of the epistemology of various disciplines.⁵⁶

What may be emerging is a more comprehensive set of curricular goals in terms of which education objectives are being formulated. Furthermore, it is important to note that the increased responsibility of local boards in establishing their own programs has led to goal statements at the board level. Potentially, the range of goals that exists in policy at the level of Ministry guidelines and at the operational level in schools is large. There has been, we believe, a genuine expansion of education goals over the years. Has it been too large? Returning to our earlier theme, we note that a careful classification system for goals could be useful as an adequate basis for proposals for further developments and changes in the school curriculum.

Guidelines and Resource Materials: Currently the curricular goals are specified in four basic types of curriculum documents: circulars, curriculum guidelines, resource guides, and curriculum ideas for teachers.⁵⁷ The first two are concerned with policy. Statements contained in such documents outline the minimum requirements established by the Ministry for the program in the areas identified. Documents in the third and fourth categories do not represent policy but are simply helpful advice to assist teachers.⁵⁸

Table 4.3: Circulars and Curriculum Guidelines gives a structural outline of policy documents. Public education is separated into four parts called

⁵⁶ Ibid., p. 1.

⁵⁷ Storey, John W., "Provincial Curriculum Policy," (Toronto: May 17, 1977), pp. 36-37.

⁵⁸ Ibid., p. 37.

TABLE 4.3
Circulars and Curriculum Guidelines

| DIVISIONS | PRIMARY | JUNIOR | INTERMEDIATE | SENIOR |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Curriculum Policy Documents | Circular P _{JJ} The Formative Years. Philosophical background for P _{JJ} is found in Education in the Primary and Junior Divisions. | | In draft form - Circular I ₁ : The Adolescent Years. | Circular HS1: Secondary School Diploma Requirements, 1977-78. |
| No. of publications | 13 Curriculum ideas for teachers | | 42 guidelines ⁵⁹ | 77 guidelines ⁶⁰ |
| Grade Levels | JK - 3 ⁶¹ | 4-6 ⁶² | 7-10 | 9-13 |
| Objectives | Objectives in The Formative Years are divided into skill areas (listening, reading, perception and expression, speaking, writing, handwriting, and decision-making) and subject matter areas (arithmetic, measurement, geometry, drama, music, visual arts, physical education, health, values, the individual and society, science, and geography, and Canadian studies). ⁶³ | | The draft form of I ₁ sets out content objectives in 12 expectations: relating to maths, language, Canada, environment, aesthetics, physical fitness, problem-solving, decision-making, personal aspirations, self-awareness, values, and social relationships. As well, policy provision is made for learning French as a second language, learning a third language ⁶⁴ and special education. | HS1 objectives occur in four main subject matter areas: communications, social and environmental studies, pure and applied sciences, and arts. As well, provision is made in planning students' individual programs for acquiring basic skills for continuing education, access to student potential, meeting national priorities, recommended courses, independent study, coherent programs, course transfer, enrichment, acceleration ⁶⁵ and special education. |

⁵⁹ Ontario Ministry of Education, Circular 14 Textbooks 1978 (Toronto: 1978), pp. 1-2.

⁶⁰ Ibid., pp. 2-3.

⁶¹ The Education Act, 1974, Section 1 (38).

⁶² Ibid., Section 1 (25).

⁶³ Ontario Ministry of Education, The Formative Years (Toronto, 1975), pp. 6-23.

⁶⁴ Ontario Ministry of Education, General Guideline, The Intermediate Years: Provincial Policy for the Intermediate Division (Working Draft of Proposed Document), (Toronto: 1975), pp. 7-8, 27-28.

⁶⁵ Ontario Ministry of Education, Secondary School Diploma Requirements: Circular HS1, 1977-78 (Toronto: 1977), pp. 4-5.

primary division, junior division, intermediate division and senior division. The senior division policy document, Circular HSl, also prescribes core curriculum which applies to the intermediate division. This is that all students entering a secondary school program on or after September 1, 1977, shall, within their program and during the first two years (grades 9 and 10) include courses in required subjects as follows:

English - 2 credits
Mathematics - 2 credits
Science - 1 credit
Canadian history (1 credit) and
Canadian geography (1 credit)

It is expected that each required subject will be offered at different levels of difficulty to accommodate the varying needs and abilities of the student in each school.⁶⁶

In all four divisions it is the responsibility of each school to decide which courses are classified as meeting what objective(s), and what organization of teachers, students, content and resources can best serve the individual student's needs.

Education Vs. Schooling

Our history of the Ontario curriculum suggests that there has been a steady increase in equality of opportunity for children and, if our hypotheses are correct, a continual broadening of the curricular goals. Children from whatever walk of life, with whatever ambitions and with whatever special education needs are to be accommodated. Indeed, in our meetings with various groups, increased special education opportunities was a repeated theme. With declining enrolments and declining resources two issues emerge surrounding these characteristics of Ontario's education philosophy. One issue grows out of the belief in individual choice amidst the desirable and possible curriculum alternatives available; the second grows out of contrasting the quality and quantity of the curriculum offerings.

The Issue of Personal Development in a Curricular Environment of Alternatives: As is the case with most things that are good for us, there is a risk of harm if the good is taken to an extreme. In the case of a rich environment

⁶⁶ Ontario Ministry of Education, Secondary School Diploma Requirements: Circular HSl 1978-9 (Toronto: 1978), in press.

of curriculum options it is easy to imagine children choosing courses and programs of study that merely reaffirm their existing capabilities rather than help them expand into new areas. An enriched curriculum environment can, hypothetically, lead to poor individual development.

Such does not appear to have happened in Ontario. The HSI⁶⁷ studies demonstrated that, in general, high school students chose reasonably diverse programs which, on balance, appeared not to be greatly different at their core than did students' program routes prior to the introduction of the credit system. One might well take the result of the HSI studies and make a case that the alternatives were not needed in Ontario schools. The counter argument would suggest that the new philosophy had not been adequately realized and children had not been encouraged to use the opportunities available to them.

With fewer students in school, the ability to offer a rich variety of alternatives is decreased. Accordingly, one aspect of the issue before us involves turning our attention away from the construction of still new alternatives and toward an investigation of needed alternatives to ensure equality of opportunity and course selection patterns which result in rich personal development for the child. While we raise this issue in the Commission, we do not believe that it is one that can be quickly solved nor, perhaps, without further research. What should be ensured is that decisions at the provincial and board level are not made too soon and too rapidly so as not to strain undesirably the curricular philosophy.

The Issue of Quantity and Quality in the Curriculum: The achievement of goals is directly related to the amount of instructional time devoted to them. This is a recognized fact in competitive sport and competitive music where up to 25 or 30 hours of practice time per week are common for secondary school age children entering the highest levels of competition. High school children are up at five a.m. and in the pool at six.

This commonplace fact of goal achievement has recently been highlighted in the treatment of the goals of schools in an article by Harnischfeger and Wiley.

⁶⁷ Fleming, W.G., The Individualized System: Findings from Five Studies, The HSI Studies on the implementation in Ontario Secondary Schools of the Ministry of Education Circular HSI (1972/73). (Toronto: OISE, 1974.)

They say time is the single most important variable in the achievement of school goals.⁶⁸ Indeed, it may even be the case that the goals aimed at in instruction may depend on the teacher's perception of the amount of time he feels can be devoted to them. A recent study of biology teaching in the Metropolitan Toronto area suggested that teachers tended to aim at lower level mental abilities such as memorization and application for biology topics treated briefly in the curriculum, while higher level abilities such as the synthesis and evaluation of knowledge were aimed at in classes where larger amounts of instructional time were given to the topic.⁶⁹ Thus, the amount of instructional time spent on a goal determines how well it is treated; time may even determine what goals are attempted.

Much of the criticism of the schools over the past half decade or so can be seen as a question of how well the schools are doing what they are doing, not simply what they are doing. Given the rich variety of alternatives in our schools, one could not doubt that the basics are being taught. Would it, we wonder, make much difference to a child taking one hour of language instruction per week if that were dropped to no hours per week? This aspect of the issue for declining enrolments, then, is a question of quality vs. quantity. It may well be the case the one hour of driver training per week does, indeed, lead to driving ability, but that one hour of mathematics or French does not lead to mathematics or French ability.

From the point of view of declining enrolments, where the range of options is in question, studies will have to be undertaken to give us a clearer idea of how much instructional time is required to achieve a variety of goals. Such information would be useful in deciding how broad a school's program of curriculum options should be; and it would be useful for individual students and their parents in the planning of individual programs.

The Role of Schooling in Education: Our history of the goals of schooling and of the concept of equality of opportunity reflects a belief in Ontario

⁶⁸Harnischfeger, Annagret and David E. Wiley, "The Teaching-Learning Process in Elementary Schools: A Synoptic View." In Curriculum Inquiry 6:1, 1976, 5-43. It is noted that the Harnischfeger and Wiley claims are, at present, based on evidence relating to science curriculum only.

⁶⁹Connelly, F. Michael, Miriam Ben-Peretz, and Robin J. Enns, "Assessment of York University Biology Achievement Test." Research project funded under contract by the Ministry of Education, Ontario. (Toronto: OISE, 1978) Cited with permission.

in the importance and role of schooling in our children's education development. But, as Tom James, former dean of education at Stanford University, remarked, "We have been bombarded in recent years with the assertion that schools aren't very important."⁷⁰ Romantic critics such as Ivan Illich who have visited Ontario have promoted this theme and it has been given credibility by interpretations of certain well-publicized research findings.⁷¹ The studies by Coleman⁷² and Jencks⁷³ in the United States have been interpreted as showing that home environment overrides school environment and that the effects of schooling are effectively lost.

In a cross-national basis some of the studies by the International Education Association (IEA) tend to make the same point.⁷⁴ For example, the IEA found that the single most important factor determining reading levels at the end of instruction was the reading level the child brought with him to instruction. The return to the basics movement coincides with these findings in their plea that the schools show positive results from instruction in basic goals. Writers such as Carl Bereiter in Ontario have applied this theme by arguing that the schools should sharply restrict their goals to ones which they do best.⁷⁵ These, he argues, are primarily in the intellectual domain. Do a little and do it well could be the motto of those who would sharply

⁷⁰James, H. Thomas, "Education: A Declining or Rising Sun?" in Educational Leadership and Declining Enrolments, ed. Lewis B. Mayhew et al. (Berkeley: McCutchan Publishing Corporation, 1974), p. 124.

⁷¹Illich, Ivan D., Deschooling Society, (New York: Harper & Row, 1971).

⁷²Coleman, James S., et al., Equality of Educational Opportunity, (Washington, D.C.: National Center for Educational Statistics, 1966).

⁷³Jencks, Christopher, et al., Inequality: A Reassessment of the Effect of Family and Schooling in America (New York: Basic Books, Inc., Publishers, 1972).

⁷⁴Thorndike, Robert L., Reading Comprehension Education in Fifteen Countries: International Studies in Evaluation III, (Toronto: John Wiley & Sons, 1973). It is noted that this interpretation of the data is a partial view, based on reading and vocabulary scores. Scores in science, civics, and literature show a higher correlation with the schools, thus providing support for the view that schools are doing their job adequately.

⁷⁵Bereiter, Carl, "Elementary School: Necessity or Convenience?" Elementary School Journal, May, 1973, 436-446.

separate the goals of schooling from the overall goals of education.

It would appear, however, that while the schools are often severely criticized for not doing a good job, there is an overall public belief that the schools should be doing an ever-increasingly broader job. In fact, the faith in schooling as the route to education contrasts with and gives rise to disputes when compared with our belief in the effects of schooling. There is reason to believe that the faith in schools to solve social problems remains high.

In the 1977 Gallup Poll of Public Attitudes Towards Education the public was asked to name the most important problems confronting the public schools.⁷⁶ Then they were asked what they thought was right with the public schools. Here are the ranked results:

| <u>School problems</u> | <u>What is Right?</u> |
|------------------------------------------|---------------------------------------|
| 1. Lack of discipline | 1. The curriculum |
| 2. Integration/segregation problems | 2. The teachers |
| 3. Lack of proper financial support | 3. Extra-curricular activities |
| 4. Difficulty of getting "good" teachers | 4. School facilities |
| 5. Poor curriculum | 5. Equal opportunity for all students |
| 6. Use of drugs | 6. Good administration |
| 7. Parents' lack of interest | 7. Parental interest/participation |
| 8. Size of school/classes | 8. Good student/teacher relationship |
| 9. Teachers' lack of interest | 9. Good discipline |
| 10. Mismanagement of funds/programs | 10. Small school or school classes |

These rankings have changed only a little since the 1973⁷⁷ Gallup Poll. In 1973 among the problems curriculum ranked seventh rather than fifth, indicating that curriculum is seen as an increasingly important problem. When people were asked what was right with the public schools, "the curriculum" and "the teachers" ranked first and second respectively. In 1973, curriculum was singled out and the public was asked if "(he/she) is learning the things (he/she) should be learning?" Over 80% of the responders said "yes." Furthermore, as in 1977, attitudes had increasingly turned more positive. Parents with children

⁷⁶Gallup, George H., "Ninth Annual Gallup Poll of the Public's Attitudes Toward the Public Schools, Phi Delta Kappan, September 1977, 33-48.

⁷⁷Gallup, George H., "Fifth Annual Gallup Poll of Public Attitudes Toward Education," Phi Delta Kappan, Septebmer 1973, 38-51.

in public schools indicated that they had become more favourable in their views of the public schools in recent years. In addition, on the question of whether or not students got a better education than their parents did, the answer was "better" by a substantial margin. When asked why they thought so, the following five reasons were listed:

1. Wider variety of subjects offered
2. Better facilities/equipment
3. Better teaching methods
4. Better qualified teachers
5. Equal opportunities for all students

There is one finding in both 1973 and 1977 which is somewhat disquieting, given the declining enrolment situation. Respondents who had no children in school gave an opposite answer to those with children in school when asked how their attitudes to schooling were changing. They were becoming less favourable. Given the fact of declining enrolment, there are more people who have no children in school. Such people may not see their own interests as being consistent with those of schooling and this could have biting political and economic consequences for schools.

Recently a study was commissioned by Southam Press which they claim is "the most comprehensive survey ever done of how Canadians feel about each other and about their country."⁷⁸ One of the items in the survey dealt with Canadian values. The question was:

In a society constantly bombarded by changes and warned of ever more to come, what is happening to Canadians' value system, the measure of things they consider in society?

The Southam survey tried to measure this by putting a list of thirteen items before almost 2,000 people across the country and asking for a ranking of importance. The results are shown in Table 4.4. Education ranked at the top not only in Ontario but for all of Canada.

The North York Board of Education in Ontario recently published results of a survey of students, parents and school staff which indicated general

⁷⁸Southam Press Limited, "The Searching Nation," (Toronto, 1977), p. 1. Cited also in The Toronto Star, September 24, 26, 27, 28, 29, 30, 1977.

Table 4.4: Canadian Values

| Rate how important to you is: | Total Canada | Region | | | | Ontario | Quebec | | |
|-------------------------------------------------------|--------------|--------|-------|-------|----------|---------|--------------|--------------------|-----------|
| | | B.C. | Alta. | Sask. | Manitoba | | Total Quebec | Extreme Separatist | Maritimes |
| A good education | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Respect for the courts or judicial system | 2 | 3 | 4 | 2 | 4 | 2 | 3 | 7 | 4 |
| Freedom of the press | 3 | 2 | 3 | 3 | 2 | 3 | 4 | 2 | 2 |
| Home ownership, being able to own a piece of property | 4 | 4 | 2 | 4 | 3 | 4 | 5 | 5 | 3 |
| Achieving job security | 5 | 5 | 7 | 6 | 5 | 5 | 2 | 3 | 5 |
| Respect for authority | 6 | 8 | 5 | 5 | 7 | 6 | 6 | 9 | 6 |
| Commitment to the free enterprise system | 7 | 6 | 6 | 7 | 6 | 7 | 8 | 11 | 7 |
| Commitment to the work ethic | 8 | 7 | 8 | 8 | 8 | 8 | 7 | 8 | 9 |
| Religion | 9 | 13 | 9 | 9 | 9 | 10 | 13 | 13 | 8 |
| Politics | 10 | 10 | 10 | 10 | 11 | 9 | 10 | 4 | 11 |
| Achieving a position of power | 11 | 12 | 12 | 12 | 10 | 11 | 9 | 12 | 12 |
| Unions in our society | 12 | 11 | 13 | 13 | 12 | 12 | 11 | 6 | 10 |
| Women's rights movement | 13 | 9 | 11 | 11 | 13 | 13 | 12 | 10 | 13 |

Table 4.5
A Comparison of Responses
about Good Education

| ITEMS | Strongly Agree % | Agree % | No Opinion % | Disagree % | Strongly Disagree % |
|-----------------------------------------------------------------------------------------------|------------------------|------------|--------------------|---------------|---------------------------|
| STUDENTS' ITEM: This school is providing me with a good education | 12 | 55 | 17 | 12 | 4 |
| PARENTS' ITEM: All in all, our school is doing a good job of educating my child(ren) | 11 | 54 | 8 | 20 | 5 |
| STAFF'S ITEM: This school is providing students with a good education. | 14 | 66 | 8 | 10 | 1 |

The figures were rounded off in this 1977 North York Board
of Education survey.

satisfaction with schooling.⁷⁹ The results are presented in Table 4.5. Students and parents made similar responses about good education. Approximately two-thirds of both students and parents said they thought the school was providing a good education. Only a quarter of the parents disagreed. Eighty per-cent of the staff felt that the school was providing students with a good education. When these data were compared with the results of a similar survey in 1971/72, there was an overall 10% increase in the number of students who felt that the school was doing a good job. There was a slight decrease in the number of parents and teachers who thought the same thing.

The Gallup Poll and the North York study, along with frequent public expressions of concern for the basics and other statements on the effects of schooling, highlight the fact that there is no common agreement over whether or not the schools are doing a good job. What is suggested is an overriding belief in the power of schooling for education purposes.

This belief in schooling raises an important issue for the Commission on Declining Enrolments. It is possible that the overall belief will result in continued appeals to expand the content and goals of the school curriculum. Recently, for example, increased multicultural opportunities in schools have been highlighted.⁸⁰ We have already remarked that in our visits throughout the province new and varied special education needs were repeatedly mentioned as desired new goals for the schools. The question arises: to what extent can new goals and new content be added at a time when enrolments are declining? Another difficulty is to determine which options to retain in the interests of high quality education.

In an expanding school system with expanding resources, it was relatively easy to accommodate new goals and new content. Now, however, the situation is reversed. In its most general sense, we believe the issue before us is to confront, in rather concrete ways, the question of the role of schooling in the education of our youth. James put it this way:

⁷⁹Hunter, Susanne M., Albert E. Virgin, and Louise Toffoli, "Research Report of a Survey of Secondary School Perceptions," (North York Board of Education: 1977), p. 61. Quoted with permission.

⁸⁰Thomas, R.A.L., "Memorandum to Directors of Education, Principals of Schools Re: Heritage Languages Program," (Toronto: June 15, 1977), p. 1.

So I close as I began, optimistic about the rising sun of education, convinced that schooling is necessary, but also convinced that we must abandon our nineteenth-century notion that schools are the only instrument society has to accomplish its aims of education. Somehow, if school men are to be educators, they must learn about how all our institutions interact and about the necessary and sufficient conditions under which this interaction can maximize the achievement of our aims for education.⁸¹

The separation of the aims of schooling from the aims of education is not something that can be accomplished easily by studies commissioned by us. Careful, thoughtful research work on curricular goals is needed.

AIMS OF EDUCATION:

Much of what might have been said under the topic Aims of Education has already been recounted in our section on the goals of Education. On somewhat arbitrary grounds we have chosen to separate aims from goals on the grounds of generality; goals as we have treated them are more specific and are tied to the content of instruction, while aims reflect the kinds of goals in their broadest sense. The aims of the curriculum, as we have chosen to view them, refer to the hopes and aspirations we hold for our children and for our society. Specific goals as they are reflected in the various Ministry of Education guideline documents and in courses and subjects of study are the means by which these aims are realized.

Long ago, John Dewey pointed out that at bottom there are only two kinds of aims: aims for the child and social aims. Thus, we can build our curriculum and design our schools to develop such characteristics as leadership ability and an inquiring mind or a democratic and a socialistic society. In Ontario it appears that the development of equality of opportunity has coincided, for the most part, with an education system aimed at the development of the child. This feature of Ontario's education aims appears to be a characteristic of Canadian provinces as a whole. In its recent review of education in Canada, the OECD made the point this way:

Unlike most other comparable industrialized countries, Canada has neither produced a politically motivated educational reform, rooted in a conception

⁸¹ James, H. Thomas, "Education: Declining or Rising?", p. 130.

of the country's future (Quebec is a possible exception to this generalization), nor has it blocked such reform, as has happened in a number of European countries. Instead, Canada has trodden out its own path, with an array of exceptionally active programs for vast quantitative expansion and significant qualitative change of the educational system that are, however, derived from no explicitly-stated, overall national conception of the country's interests.⁸²

We shall return to this point since it raises still another general issue in the context of declining enrolments, namely the issue of balance between individual and social aims for the curriculum. For now, however, let us briefly trace the development of this aspect of Ontario's curriculum philosophy.

Given the lack of historical documents, what we are able to present is necessarily brief. We have already noted that in the nineteenth century cases of the "common" and "grammar" schools, the view of the child was restrictive and that obedience and memorization were emphasized. Nevertheless, however much we might object to the particular view of the child expressed in those days, the education aims were expressed in terms of what was best for the child. For example, in the elementary "common" schools the three R's had the practical purpose of helping the young make a living in a pioneer community. With the exception of the introduction of specific matters into the curriculum, such as bilingualism policy, we could find little evidence of any other significant uses of the schools for social aims.

A major shift has occurred, however, in how the aims are stated and is best expressed in the 1937 Little Grey Book's statement on elementary education. The ideas were becoming progressive in character. While they had been developed most explicitly in American schools and crystalized in the writings of John Dewey, they were introduced into Ontario through the Hadow reports in Great Britain.⁸³ Development of the inquiring mind, the development and expression of interests, inquisitiveness, interaction with the environment and so on were the hallmarks of Ontario's emerging view of the child.

⁸²Organization for Economic Co-operation and Development, Review of National Policies for Education: Canada (Paris: OECD, 1976), pp. 20-21.

⁸³Fleming, W.G., Education: Ontario's Preoccupation, p. 184.

These aims were, again, echoed in the Hope Commission of 1950 and it appears to be in this report that the different concept of the child which separated the elementary school from the secondary school was clarified. The secondary school curriculum, while still asserting its aims in terms of the child, tended to have content goals override goals expressed in terms of student interest. Thus, while the overall aims were the same for the school system, the way in which they were realized was different in the elementary and secondary school.

This difference was removed at the level of policy with the 1968 Living and Learning Report and subsequent secondary school reforms, most notably the abolition of the examination system and the introduction of the credit system.⁸⁴

These child-oriented aims of education are affirmed in various ways in recent Ministry of Education guidelines for the intermediate and secondary school years.

Subtitled Provincial Curriculum Policy for the Intermediate Division, the 1975 working draught of the general guideline for the intermediate years states that learners are to be involved in a search for identity, "constantly searching and testing in a process of learning to know themselves."⁸⁵ This identity search is seen to have many implications for the school as "one source where they should find appropriate social, emotional, and leadership experiences."⁸⁶ The draught cites the need to balance a possible conflict between the learner's search for self-identity and the school seeking to mold future citizens. "To achieve this delicate and essential balance, it is urgent that teachers understand this crucial period in the student's development."⁸⁷

At the senior division level, the 1977/78 HSI guideline emphasizes that "the primary purpose is to help each student develop to the maximum his or her potential as an individual and as a member of society who will think

⁸⁴Crossley, J.K., "Curriculum Development in Ontario," speech to Northern Ontario Public School Principals' Association, October, 1971, p. 9.

⁸⁵Ontario Ministry of Education, General Guideline, The Intermediate Years: Provincial Policy for the Intermediate Division (Working Draft of Proposed Document), (Toronto: 1975), p. 2.

⁸⁶Ibid., pp. 2-3.

⁸⁷Ibid., p. 3.

clearly, feel deeply, and act wisely."⁸⁸ The secondary school is seen as pivotal in achieving these goals: "The objectives and achievements of elementary education, the developments in post-secondary education, and the expectation in the various fields of business and industry are also being taken into consideration in planning a secondary school program."⁸⁹ The individual differences in students are emphasized. "If many individual differences are to be accommodated within a subject or course, there must be a careful and perceptive adaptation of curriculum guidelines, constant awareness of standards, and a flexible organizational structure."⁹⁰

Finally, the 1977 speech by Premier Davis quoted above also reflects this emphasis on the aim of education as a development of the individual.

The special way in which the aim of child development in the education system was interpreted in Ontario was reflected in a relaxation in the grading system and in genuine efforts at various levels to individualize instruction. If, the argument runs, children are genuinely different from each other in their abilities and genuinely different in their interests, then they will progress at various rates throughout the years. Grades, according to this view, represent artificial constraints imposed for administrative convenience and solidified by arbitrary divisions within subject matters. Thus the aim of developing a self-motivated inquiring child by capitalizing on his interests and capacities led to important organizational features of the curriculum. Reduction of the notion of age-grades, the credit system and individual choice and individualized programs and the elimination of external exams are all counterparts of Ontario's child-oriented aims.

As we have reviewed our various meetings and thoughts on the effects of declining enrolments there seem to be none which seriously threaten the child-oriented philosophical plank in Ontario's curriculum philosophy. No one is suggesting that the aims of education should be posed in other terms. However, as we note below, some movement to the other direction could well have

⁸⁸Ontario Ministry of Education, Circular HSI 1977-78, p. 1.

⁸⁹Ibid.

⁹⁰Ibid.

beneficial results.

What is potentially at stake in a situation of declining enrolment is the particular way in which our aims are interpreted. There are those who feel that Ontario has gone too far in its view of child development. The challenges are most sharp at the secondary school level but have also had their effects in the elementary school where it is argued that students should gain the basics regardless of their interests. To a limited extent the arguments, we believe, have some merit and there appears to be a conceptual issue that should be resolved.

John Dewey, long considered the father and architect of progressive education and of the view that education should be geared to the interests and needs of children, wrote a book *Experience and Education*, midway through the progressive era in the United States which argued that he had been misinterpreted.⁹¹ He argued that the extreme position of progressivism as it was then interpreted in some schools throughout the United States was antithetical to his notion of child development. Dewey's position was a synthesis between what was then called progressivism and traditionalism. Dewey believed that the curriculum should begin with the child's interests and needs but he also believed that the way in which they were interpreted should come from social forms of organization. It is, perhaps, too simplistic to say merely that Dewey looked for balance between the controls and structures presented by organized forms of knowledge on the one hand and idiosyncratic student interests on the other. Still, in his resolution of progressivism and traditionalism, Dewey argued against the "either-or" situation posed by the two extremes.

There is a lesson for us in Dewey's book. Without further explication here we wish to indicate that we believe thoughtful research and exploration of the balance between "progressive" and "traditional" views should be undertaken and debated publicly. We would not want to see the introduction of reactionary policies that would lose the humane aims of Ontario education. On the other hand, we have a feeling, in part from reading works such as those of Dewey, that Ontario education may have tended to overlook in its policy statements the "traditionalist" concern for the interaction of organized forms and

⁹¹ Dewey, John, Experience and Education (New York: Collier Books, 1976) (1938).

social forms of knowledge with its very laudable belief in child development.

A second major issue that arises out of our discussion of the aims of Ontario education concerns the lack of social aims. The OECD Review of Canadian Education report considered this lack in Canadian education one of the more serious matters to which Canadian educators should devote their attention. They put the matter this way:

Decisions now have to be taken concerning the destination of the Canadian school system within an ordered view of the future of Canada as a nation.⁹²

Admittedly, the OECD reviewers were concerned with national policy and believed more concern should be given to national issues in education. But what was said for Canada as a whole can equally be said for the individual provinces. The federal government has, of course, always intervened in provincial education matters in ways probably not imagined in the British North America Act. Vocational education was given a large boost in provincial systems through federal resources and currently the same is true for language instruction. There is, however, a difference between merely using federal funds which are made available at a provincial level and in stating specific provincial goals (some of which would relate to Canada as a nation) which would become part of the basis of Ontario's education policy.

The OECD reviewers drew attention to the role of the Canadian Teachers' Federation and applauded their efforts, in particular a document entitled "On Educational Finance". But as they noted, "groups such as this teachers' federation cannot be expected to relieve the politicians and the governments of this responsibility".⁹³ In a period of declining enrolments and declining resources, competition for public resources is becoming acute. If education aims are not specified, in part, in social terms, i.e., in terms that may lead to improving the quality of life and have positive effects for that increasing segment of the public which no longer has children in the schools, then education will be at a competitive disadvantage compared to other claimants on the public purse. As the OECD reviewers put it: "If those responsible for educational policy are not properly able to base the development of school

⁹²Organization for Economic Co-operation and Development, Review of National Policies for Education: Canada (Paris: OECD, 1976), p. 103.

⁹³Ibid., p. 102.

and education on a firm goal-oriented footing, then they risk being pushed to the side in the general political competition for resources".⁹⁴ Thus the issue is at once conceptual (What are those social goals to which we aspire?) and practical (How can those goals be specified in meaningful terms to the public at large and not merely to that segment of it with children?).

CURRICULUM DEVELOPMENT

Current provincial policy makes curriculum development an important local responsibility. Its characteristics will be described in more detail later. We wish only to note at this point that concern and dissatisfaction with their perceived responsibilities in this area was repeatedly noted in our visits to boards throughout the province. Given the twin pressures of a return to the basics and of the possible effects of declining enrolments on school curriculum options, it would be easy to visualize and recommend a clear cut curriculum development system whereby detailed specifications occurred at the level of provincial policy, thereby eliminating the need for elaborate and costly development mechanisms at the board level.

Indeed, it is likely that the Commission will make recommendations for curriculum development which would yield more consistency and role expectations by various parties than is now the case.

However, it would seem possible at this stage in our discussions to arrive at this end, and also to reduce the labour intensiveness and cost, without losing some of the historically hard-won elements in this plank of Ontario's curricular philosophy. In particular, the role of teachers and of the school as a unit of curriculum development requires careful consideration.

During the pre-Ryerson era in the early nineteenth century there was no central authority for curriculum planning and curriculum development was genuinely a local matter. But local responsibility, as will be recalled in our discussion of the evolution of equality of opportunity, did not necessarily mean that the school curriculum was organized in the best interests of the child or of the community. Indeed, the strong moves in the direction of equality throughout the Ryerson era were associated with, and probably a function of,

⁹⁴Ibid. Italics removed.

an increase in a strong central authority for curriculum. In 1846 a General Board of Education was established and was replaced in 1850 with a Council of Public Instruction. Strong powers were invested in the general board and the council, and these in turn eventually gave way to a Department of Education at the end of the Ryerson era.⁹⁵

County boards were established at the same time and provided their own supervision function. In 1871, however, county inspectors were required to have qualifications specified by the central authority. This new inspection function passed out of existence at the board level, was taken on by the Department of Education, passed out of existence again for a time, and has reappeared as a monitoring process by the Ministry of Education. Fleming saw this 1871 change as "a real increase in central control, even though the inspectors were appointed in the same way as their predecessors".⁹⁶

The strong central authority which began developing under Ryerson reached its peak of power in the 1920's. Fleming wrote:

The Department of Education exercised very firm powers over courses of study, textbooks, examinations, teacher qualifications, and inspection. School boards could choose a teacher from among qualified candidates except where one could not be found, but had only the most limited powers beyond that. Although they could still get away with arbitrary dismissals, such action was becoming increasingly difficult and could hardly be looked upon as a privilege of any great value.... The amount of real authority and influence exercised by school boards differed considerably according to their size and wealth. The smallest and poorest could afford no alternatives to a minimum departmental program, and had to lean heavily on the services the Department could provide. Control over curriculum was further enhanced by external examinations at the lower, middle and upper school levels.⁹⁷

During the 1930's, probably in association with progressive education principles in North America and England, central control over curriculum began to be relaxed. Examinations for the lower and middle schools were abandoned. The Little Grey Book of 1937, with its heavy stress on curriculum for individual needs, was a direct challenge to the lockstep program, the kind of program

⁹⁵Fleming, W.G., Education: Ontario's Preoccupation, (Toronto: University of Toronto Press, 1972), p. 65.

⁹⁶Ibid.

⁹⁷Ibid., p. 72.

most easy to administer by strong authoritative central bodies. In practice, according to Fleming, little happened in schools as a result of the Little Grey Book philosophy but, nevertheless, the principle was struck.

The first direct plan to disperse the central authority arose out of the Porter Plan⁹⁸ and the Hope Commission⁹⁹ of 1949 and 1950 respectively. The Porter Plan finally removed all but the last external examination for schools by dropping the high school entrance examination. In fact, as early as 1933 the Minister of Education's Annual Report noted that nearly 50% of the students were "recommended" to enter high school by their principals, rather than obligated to write this exam.^{99a} With its removal it was possible to plan curricula below the high school without referring to the entrance exam as a base for the structure of the curriculum. But, as one author put it, "The most important aspect of this revision was the way in which it was to be implemented, since it represented an unprecedented effort to involve teachers and local educational leaders in the process of curriculum revision."¹⁰⁰ Curriculum 3, a 1950¹⁰¹ Memorandum re: Establishment of Local Committees on Curriculum, followed with explicit directions on procedures for organizing local committees. As Kel Crossley, former director of the curriculum branch of the Ministry of Education remarked in a speech:

There was a recognition by some far-seeing Ontario educators, including Dr. Althouse, the Chief Director, and Colonel Watson, then Superintendent of Curriculum for the province, that genuine growth among all concerned in education - pupils, teachers, and administrators - required involvement and participation. In 1950, it was clearly recognized that if the school was really the cradle of democracy, then the people of Ontario were really going to be "Citizens that were publicly useful and privately happy" and as many as possible would be involved in the processes of change.¹⁰²

⁹⁸ Ibid., p. 188.

⁹⁹ Ibid., p. 74.

^{99a} Report of the Minister of Education, Province of Ontario, For the Year 1933 (Toronto: King's Printer, 1934), p. 108, Table XVI.

¹⁰⁰ Young, Don, "A Brief Summary of Curriculum Revision in the 1950's," (Toronto: Mimeo, November 25, 1974), p. 2.

¹⁰¹ Ibid.

¹⁰² Crossley, J.K., "Curriculum Development in Ontario," speech to Northern Ontario Public School Principals' Association, October 1971, p. 7.

It appears that there was a massive amount of local curriculum activity during the early 1950's, but this tended to peter out over the last half of the decade. Reaction to progressivism, highlighted in books like Hilda Neatby's *So Little for the Mind*,¹⁰³ had, as Fleming notes, an influence on the Minister and his Ministry.^{103a} In fact, one of the ironies of decentralized curriculum making in Ontario is that it exists by grace of the central authority and may be removed at any moment.

While the activity waned, the policy did not and once again came to the fore during the 1960's under the Minister of Education, William Davis. As Fleming noted, "Davis deserves credit for initiating and guiding most of the sharp departures from tradition that characterized the decade".¹⁰⁴ One of the planks in Davis' program called for local control over certain aspects of education to be strengthened and made more effective. In 1965 the Ministry established five area offices which were later expanded to ten, and recently reduced by four. One of the key features of the regional offices was their service function to local boards. Supervision, in 1967, was replaced by the notion of "program consultants" and the word "inspector" appears to have been dropped. The function of the local offices was, among other things, aimed at improving the quality of local programs.

In 1973 the regional offices were reorganized and the activity of the program consultant was slowly phased out. The Ministry personnel are now known as education officers, and the role, particularly in the south, has altered to one of ensuring the policies of the Ministry, as found in various circulars and guidelines, are carried out. Observations and questionnaires are used in this process. Reports are written and shared with board personnel. Although this is not a return to inspections, as carried out in the past, it does maintain the presence of the Ministry in the school divisions, a function which should prevent too great differences in the application of policy across the province.

In 1970 Crossley saw the functions of the Department grouped into three

¹⁰³Neatby, Hilda, *So Little For the Mind* (Toronto: Clarke, Irwin, 1953).

^{103a}Fleming, W.G., *Education: Ontario's Preoccupation*, p. 189.

¹⁰⁴*Ibid.*, p. 78.

areas:

- responsibility for the laws which form the framework of publicly supported education;
- the distribution of funds, which are not unlimited;
- the provision of information and ideas¹⁰⁵

That third function was to be accomplished through services provided by program consultants in the then ten regional offices, through the distribution of guidelines (no longer courses of study) from which courses of study could be developed locally, and through the provision of materials and resources, or source lists indicating where resources could be found. Thus, in contrast with the checking and inspecting tone of the earlier Ryerson era, the tone was now one of local initiative and prerogative with central support and assistance. The school board reorganization of 1969 furthered this development by making it possible for boards to acquire their own resources, such as consultants and resource centres, and to sponsor workshops, conferences, summer writing teams and the like. Here, of course, sharp discrepancies have emerged. The smallest of the consolidated boards have not been able to undertake these functions. In fact, the amount of support for program development at the board level has varied a good deal according to the size of the board.

With the application of elementary school principles of curriculum development to the secondary school in the Hall-Dennis Report in 1968, coupled with Davis' credit system at the secondary school level, the principle of local involvement in curriculum development was established. There is reason to believe that local control in the secondary school did not win as much active local support as appears to be the case at the elementary school. Nevertheless, as is seen in the following items extracted from Ministry guidelines, the policy of local development in conjunction with central control is consistent throughout the school system. As these statements are reviewed, it is worth noting that it is the teacher and the school unit which are emphasized as the focal point for curriculum development.

Current Policy on Curriculum Development

Ontario's policy on the responsibilities of people involved in curriculum development are set out in pp. 1-5 of The Formative Years (1975) and are

¹⁰⁵Crossley, J.K., "Planning a Creative Curriculum," speech to London Education Officials' Conference, February, 1970, p. 5.

echoed in Ministry of Education documents relating to the intermediate and senior divisions.

Primary/Junior Divisions: Those who should be involved in planning the education of the individual child are local level educators. "As always, the major challenge falls to educators at the local level to translate the objectives into relevant learning experiences for each of our children."¹⁰⁶

To facilitate locally based translation, the Ministry has a "...policy of issuing guidelines rather than detailed courses of study. This acknowledges that, to be effective, curriculum must be closely related to the characteristics and needs of the particular pupils for whom it is planned".¹⁰⁷

The closer to the individual learner the curriculum planning gets, the more concentrated and detailed it becomes. "While the Ministry articulates the broad goals, it is the responsibility of the local school boards - through their supervisory officials - to formulate local programs that are within the rationale of the provincial policy and at the same time reflect local needs and priorities."¹⁰⁸ Narrower and more concentrated: "School staffs, both as individual teachers and as a collective body under the leadership of the principal, have the task of planning classroom programs specifically adapted to the children for whom they are responsible"¹⁰⁹

Further: "Those most aware of the children's needs and the community's expectations - parents, teachers, principals, supervisory officials, as well as the children themselves - must all be involved in the planning process in appropriate ways".¹¹⁰

One way of handling local curriculum treatment is by committees, which "define aims and set priorities in terms of community expectations. Committees identify local resources, refine perceptions that might affect the general

¹⁰⁶ Ontario Ministry of Education, The Formative Years (Toronto: 1975), p. 1.

¹⁰⁷ Ibid., p. 2.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

sequencing of instruction, and provide, as temporary assistance for less experienced teachers, more or less detailed outlines of work and sample units".¹¹¹ But "however extensive this assistance, the major responsibility for planning curriculum rests with the school".¹¹²

The teacher has the major role in making the curriculum work. "Much of the necessary planning (and in some cases almost all of it) must be done by the individual teacher. Certain important parts of the planning process are, however, best done cooperatively, in some cases by the entire teaching staff, in other cases by all the teachers of a given division."¹¹³

"Individual teachers have the responsibility of selecting strategies, resources, and activities appropriate to the needs of individual children, who should then be involved in setting short-term objectives, in devising ways and means of accomplishing tasks, and in choosing activities."¹¹⁴

Intermediate Division: Published in 1951, Curriculum 1:1 and grade 9 and 10 coverage in HSI are the only Ministry documents concerning intermediate division curriculum policy that currently exist.¹¹⁵ The document projected to fill this gap, The Adolescent Years, is not yet complete.¹¹⁶ Detail about policy on the responsibilities of people involved in achieving expectations has been elicited from a 1975 draft for the intermediate years and from intermediate subject matter guidelines published in 1977. Subtitled Provincial Curriculum Policy for the Intermediate Division,¹¹⁷ this working draft "sets out the goals for this division, describes the needs and characteristics of the adolescent, outlines essential learnings that will be a part of each student's program in every year and identifies the related responsibilities of teachers, principals

¹¹¹ Ibid., p. 3.

¹¹² Ibid.

¹¹³ Ibid.

¹¹⁴ Ibid.

¹¹⁵ Ontario Department of Education, Intermediate Division: Outlines of Courses for Experimental Use (Toronto: 1951)

¹¹⁶ Storey, John W., "Provincial Curriculum Policy," (Toronto: May 17, 1977), p. 35.

¹¹⁷ Ontario Ministry of Education, General Guideline, The Intermediate Years: Provincial Policy for the Intermediate Division (Working Draft of Proposed Document) (Toronto: 1975).

and supervisory officials".¹¹⁸

"At the local level, principals and teachers must ensure that there are opportunities for each student to achieve the competence and forms of growth and development implied in each of the expectations in the guidelines. The principal and staff must designate which courses/units/themes are possible vehicles for this achievement."¹¹⁹ In Intermediate Guidelines for English,¹²⁰ History,¹²¹ and Geography,¹²² these teacher and principal responsibilities are reiterated in terms specific to curriculum development and implementation for those content areas.

In summary, at the intermediate division, the Ministry sets out the provincial expectations and objectives, and at the local level the school principal and teachers are responsible and accountable for developing and implementing a program which demonstrably achieves the provincial expectations and objectives.

Senior Division: The introduction to HSI¹²³ emphasizes the role of the school, of which "the primary purpose is to help each student develop to the maximum his or her potential as an individual and as a member of society".¹²⁴ From the perspective of those involved in elementary education and in business and industry, the secondary school is seen at the hub of achieving these goals.¹²⁵

In the senior division as in the primary, junior, and intermediate divisions, it is "the local level in which new opportunities are being sought to articulate aims and objectives and to plan curriculum..."¹²⁶ As in the earlier divisions, attending to individual differences among students is

¹¹⁸ Ibid., p. 2.

¹¹⁹ Ibid., p. 8.

¹²⁰ Michalski, Catherine, et al., Curriculum Guideline for the Intermediate Division English (Toronto: Ontario Ministry of Education, 1977).

¹²¹ Clemens, Jim, et al., Curriculum Guideline for the Intermediate Division History (Toronto: Ontario Ministry of Education, 1977).

¹²² Andrews, Marilyn, et al., Curriculum Guideline for the Intermediate Division Geography (Toronto: Ontario Ministry of Education, 1977).

¹²³ Ontario Ministry of Education, Secondary School Diploma Requirements: Circular H.S.1 1977-78 (Toronto: 1977).

¹²⁴ Ibid., p. 1.

¹²⁵ Ibid.

¹²⁶ Ibid.

emphasized.¹²⁷ In the senior division "it is considered appropriate...for each school to develop or adapt its own curriculum to meet the needs, interests and abilities of the students in its community".¹²⁸

Provincial Curriculum Policy: In his speech on this topic at the program development seminar of the Ministry of Education in May, 1977, Curriculum Branch Director John Storey emphasized the important place of local curriculum development and implementation. He noted that "provincially the Ministry is still developing curriculum guidelines, not courses of study. Local school jurisdictions will still have considerable responsibility for curriculum development. This local planning will continue to involve the development of specific objectives appropriate for each course being offered at the different levels of difficulty - typically three levels or more - in order to meet the needs of all students ... But this is not a new situation. Teachers have been doing this up to now and doing it well".¹²⁹

To summarize this information about Ontario policy on curriculum responsibility, Storey is quoted as saying, "This pattern follows that established in The Formative Years whereby the program in each school ensures that certain learning opportunities are provided, but goes no further in specifying precise levels of achievement."¹³⁰ "That responsibility will rest where it belongs, with the school teacher and principal".¹³¹

School Board Structures and Processes for Curriculum Development

Although no comprehensive study of roles, structures and processes for local decision making in Ontario has been conducted, a number of reports and studies on specific school systems have been done. An account of these could easily make a chapter by itself. It will suffice here to note the considerable complexity that appears to exist throughout the province and some of the reasons

¹²⁷ Ibid.

¹²⁸ Ibid., p. 3.

¹²⁹ Storey, John W., "Provincial Curriculum Policy," (Toronto: May 17, 1977), p. 20.

¹³⁰ Ibid.

¹³¹ Ibid., p. 21.

for this complexity.

Roughly speaking, the degree of program specificity reaching the teacher can, somewhat arbitrarily, be divided into low, medium, and high across the province. Figure 4.1 diagrams these relationships.¹³²

In the first of these organizations, the "low" one, Ministry guidelines are transmitted to teachers, perhaps with explanatory workshops. They are then expected to build their curriculum at the school or perhaps at their own classroom level. This plan tends to characterize small boards with minimum resources. It is a plan which, if properly organized, would place the teacher in a central role.

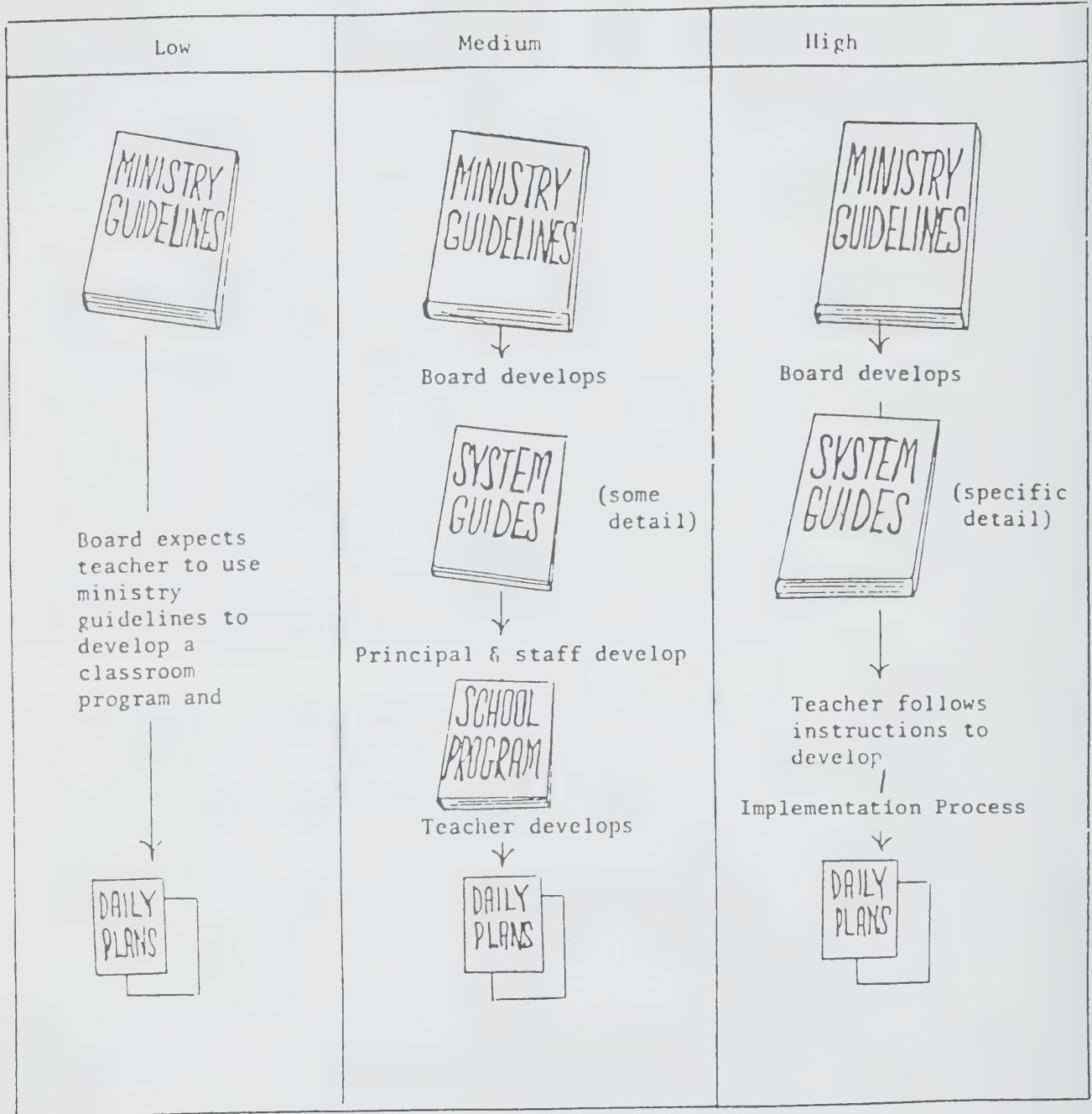
The "medium" plan, which is more frequently found throughout the province, is one in which the central board offices develop a second level of guidelines more specific than the Ministry guidelines. These may be draughted by central board office personnel such as consultants, coordinators and superintendents, or they may be done in cooperation with others in the school system on joint writing teams. According to this plan, it is the school's responsibility to implement the system-wide guidelines into curricula appropriate for their schools. There may be a more or less sharp separation at this point with some systems demanding a fairly careful implementation of the system guidelines, whereas others tend to give more autonomy to the school to interpret and adapt the system guidelines.

Taken to the extreme, the former of the alternatives in the medium system leads to the "high" strategy, which is to construct system-wide guidelines and then to ensure they are implemented in the classrooms throughout the board. Under such a plan, which is fairly common throughout the province, teachers and principals have little more authority and responsibility than they would have under a system in which detailed Ministry courses of studies were specified.

In this respect, one author in a paper prepared for the Task Force remarked

¹³²Greenfield, T.B., et al., Creating and Changing Curriculum in a School System: A Design for Development, Implementation and Evaluation, A Report to the Wellington County Board of Education, (Toronto: OISE, Dept. of Educational Administration, 1976), p. 124. Quoted with permission.

Figure 4.1
Program Specificity at the Teacher Level



that "in the disengagement of the Ministry from the powerful, Prussian-like system that Ryerson had initiated, the feudal aspects of the former ministerial organization and administration of education were merely transferred to 120 minor feudal systems, as county or city boards of education".¹³³ It is our impression that this overstates the case for the province as a whole, but it also occurs to us that in many cases local schools and individual teachers did not grasp the ring of curriculum development.

The number of people, the roles they play and the organizational structures developed by boards, particularly of the medium and high type, are strikingly large. While the policy made it clear that curriculum was to be developed at a local level, the method by which this was to occur was never specified in detail. Just as we earlier remarked that there is no operational framework of goals for the province of Ontario, neither is there an operational framework for the development of curriculum. Thus, in a study of one board, there are nine categories of personnel from the trustees to the teachers who are involved in curriculum decision-making and these cover six overall tasks ranging from budget to evaluation.¹³⁴

Not only is there variation from board to board, there is considerable variation within boards. In a study of one Ontario board nine overall patterns for decision making were found.¹³⁵ To give some feeling for the complexity involved, one such route is presented below in Figure 4.2.¹³⁶

Needless to say, curriculum development has become a labour intensive and expensive activity in the province. The various steps, procedures and decisions take time. Our visits to boards throughout the province indicate that there is considerable board level dissatisfaction with this state of affairs. From this we might assume that at the level of the boards there would be little dissatisfaction if somehow the complexity and activity were reduced. But,

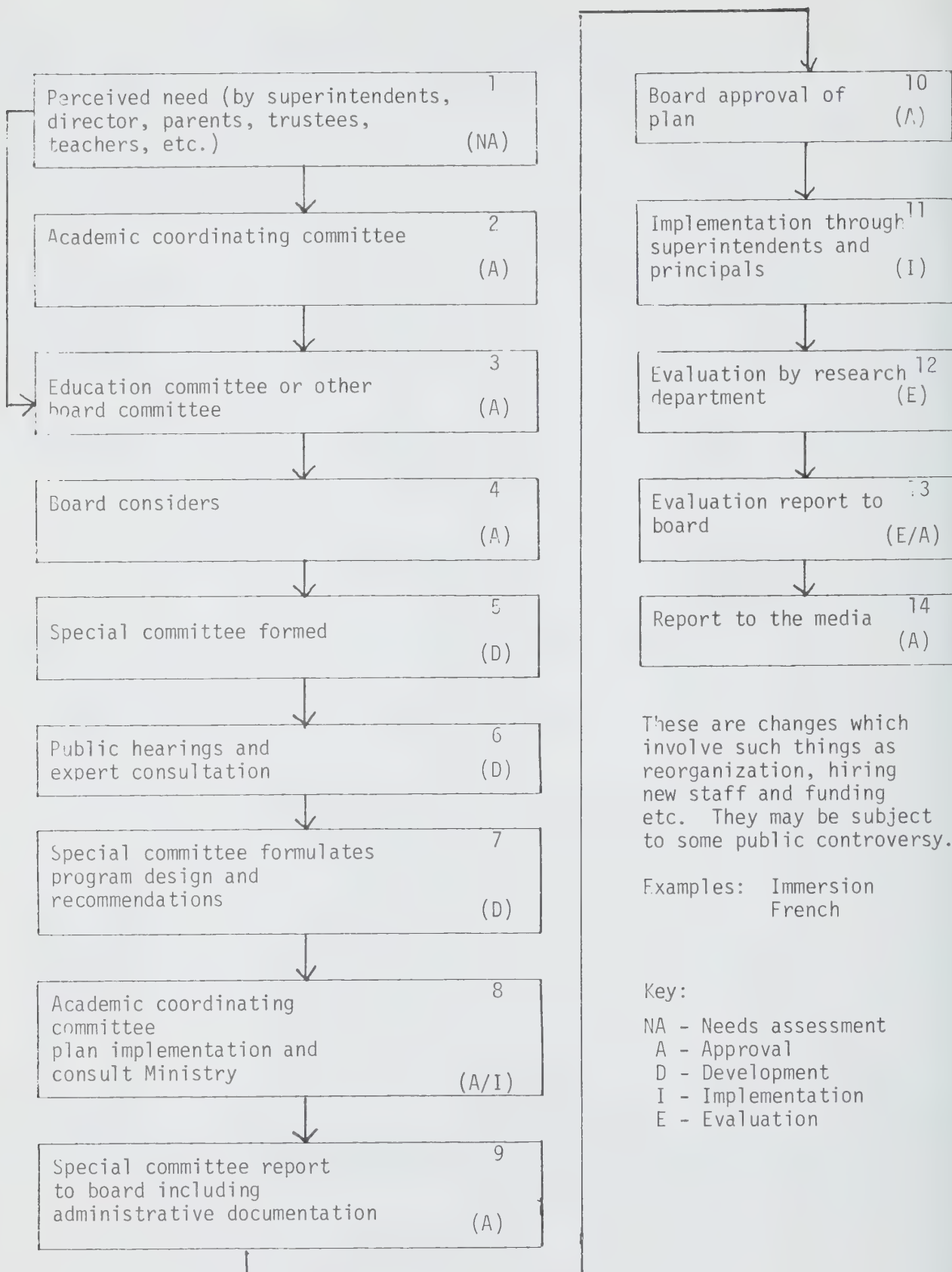
¹³³ Wees, W.R., "Teacher Autonomy and Life-Long Learning", (Toronto: Mimeo, 1978), p. 2.

¹³⁴ Leithwood, K.A., "Preliminary Report of the Tri-County Curriculum Decision Making Project", 1976, Appendix A.

¹³⁵ Greenfield, T.B. et al., Creating and Changing Curriculum in a School System: A Design for Development, Implementation and Evaluation, A Report to the Wellington County Board of Education, (Toronto: OISE, Dept. of Educational Administration, 1976), p. 41.

¹³⁶ Ibid., p. 45.

New Programs Centrally Initiated:
Long Route for Development and Appraisal



as our review of the history of this aspect of Ontario's curricular philosophy demonstrates, confidence in teachers and the rights of the local community in the context of a proper central authority developed out of long-standing beliefs. Thus, while the degree and kind of board level curriculum development activity is at issue, the value placed in teachers and in local development is not. What is needed is a more clear-cut conceptual separation of the functions of school-based development and of development at the central Ministry level, along with a reasonably precise development model of the relationship between these two poles in curriculum development.

A NOTE ON THE MINISTRY OF EDUCATION

A first time reader of the chronicle of Ontario's curriculum history is struck, even startled, by the predominance of names from the Ministry of Education, both political and bureaucratic. On second thought this is, perhaps, not so surprising. Ryerson had, after all, collected authority and this was enhanced up until the early 1930's. In fact, from a strictly legal point of view, the authority is as strong as ever.

One cannot but help get a strong feeling from the history of Ontario's curriculum that a strong central authority has, on balance, been a desirable force. The development of equality of opportunity, of broad-ranging curricular goals, of an important role of schooling in the education of children and child-oriented aims of education appear to have depended in large part on the policy formulation and implementation activities of the central authority. There are, of course, dangers in such a system of control. It is clear from reading Ryan's account of the credit system in Ontario that strong individuals within the Ministry can have strong influences and these may, of course, be for the good or otherwise.¹³⁷ The potential for the enforcement of rigid notions that appear to have dominated during the post-Ryerson era are possible. Still, in a province as geographically diverse as Ontario with a population so unevenly distributed, it would appear that a strong central authority is required to give leadership and to ensure equality throughout the province.

Given our view of the aims of education, which suggests that Ontario has tended to overlook social aims, one of the issues that arises has to do with the relationship of the Ministry of Education to other branches of government. Presumably these other branches would be rich sources of information and ideas

¹³⁷Ryan, Doris W., "Policy Making in Curriculum".

on the social aims of education in contrast to child-oriented aims. It may be that interaction with other government branches would help the Ministry of Education balance its child-oriented areas with social aims.

Still another issue has to do with striking a balance between the desirable and potentially undesirable effects of a strong central authority. At bottom what may be most important in striking this balance are the qualities of the people hired at the Ministry of Education. To the extent that Ministry personnel are in touch with worldwide ideas on curriculum, on education advancement and with the needs and demands of Ontario people, they would be better able to initiate curriculum plans, to advise the Minister on policy and to work with local school boards. Without a detailed analysis of key figures over the years, it does, nevertheless, appear to us that a high quality staff has worked to Ontario's benefit in the past. We believe that thought should be given to deliberate ways and mechanisms for selecting and training Ministry personnel to maintain the quality in the future. Opportunities for in-service and advanced educational pursuits, more broadly based selection committees for the hiring of staff, sabbatical leaves and exchanges are all possibilities and should be explored.

The present trend of publicly naming those from the teaching profession and from the universities who serve on curriculum committees, previously not done, will tend to ensure that leadership is used wisely.

III.

POSSIBLE CURRICULAR EFFECTS OF DECLINING ENROLMENTS

So far in this chapter we have been concerned with the major planks in Ontario's curriculum philosophy and how these might be affected by declining school enrolments. In this section we turn our attention to more specific and concrete matters. All of these are, of course, related to the philosophy and should be read in this light. The expected effects of declining enrolments in Ontario's four school divisions (primary/junior, intermediate, and senior) and some suggestions are summarized below in five categories: goals or objectives, curriculum development, programs or courses, classroom instructional environment and curriculum support services. An asterisk identifies subheadings which apply in all divisions and which raise questions that are subjects of Commission studies.

Our sources were two opinion surveys conducted with Ontario supervisory officials, from the Northeastern¹³⁸ and Eastern Ontario Regions,¹³⁹ opinions obtained from members of the Commission's Curriculum Task Force, information collected by the Canadian Teachers' Federation,^{139a} the 1975 Report of Task Force on Declining Enrolments from the Manitoba Teachers' Society,¹⁴⁰ and the 1974 Report on the Declining Rural Population and the Implications for Rural Education by M.P. Scharf,¹⁴¹ for the Saskatchewan School Trustees' Association. Several board reports kindly made available to the Commission were also consulted. In addition, many documents were obtained during our visits to boards over the past few months.

¹³⁸ Leithwood, K.A., "Responses from the Supervisory Officers of the Northeastern Ontario Region (11 Systems Represented)", (February, 1978).

¹³⁹ Leithwood, K.A., "Discussion with Eastern Ontario Superintendents about the Effects of Declining Enrolments and Resources", (February, 1978).

^{139a} Canadian Teachers' Federation, Report of the Seminar for Professional Development Officers of CTF and its Member Organizations on Declining Enrolments (Ottawa: November 27-29, 1977).

¹⁴⁰ Reimer, A., Chairman, Report of Task Force on Declining Enrollments. The Manitoba Teachers' Society, (March, 1975).

¹⁴¹ Scharf, M.P., A Report on the Declining Rural Population and the Implications for Rural Education, Saskatchewan School Trustees' Association, (Regina, 1974).

PRIMARY/JUNIOR DIVISIONS

Goals and Objectives

Extras: The objective of providing extra attention for students' individual differences may be lost.

Basics: The basics may be taught before the extras.

*Quality: Objectives are not likely to change but they may not be achieved as well.

Public school responsibility: A thorough examination of the assumptions underlying the inclusion of junior kindergarten and grade 13 in the curriculum may be helpful.

Curriculum Development

Textbooks: Teachers may fall back on their textbooks with the result that the textbook may become the whole program.

*Implementation: Transfer of teachers may result in particular curriculum development plans not being carried out due to lack of staff and uncommitted staff. Responsibility may then fall to principals and senior administration.

*Summer writing teams: These may be eliminated unless something else can be discontinued.

Teacher morale: The lowering of teacher morale may result in reduced cooperation and increased defensiveness concerning curriculum implementation.

Professional development days: More coordination of these days may be necessary to help concentrate systematically on curriculum development and implementation.

*Centralization: There may occur a retreat from local development to a central, provincial emphasis. However, initiatives for developing alternatives can be sought at the local level, so that declining enrolment could be treated not as having crisis consequences, but as providing the opportunity for careful, cooperative local planning.

Programs and Courses

Programs: Programs such as music, art, family studies and primary French immersion may be discontinued. Field trips are already being curtailed.

Language arts: An increase in split grades may affect the attention which can be given to beginning readers, so outcomes could be affected. Since reading may receive overcompensating attention, creative writing could suffer.

Mathematics: The teaching of geometry may suffer.

*Resources: There may be fewer resource materials. This is important since teachers are trained to work with specific materials. Any course requiring equipment is suffering as all instructional funds appear to be in jeopardy. While funding policy is ambiguous there is a general concern on the part of publishers about updating the quality of materials. Computer assisted instruction could increase. The number of librarians may be reduced or eliminated. Mobile classrooms that can be moved from school to school may provide otherwise unavailable special facilities.

Classroom Instructional Environment

*Split grades: The numbers may increase and could have a negative effect on teacher morale. Split grades tend to result in less attention to individual students and less remedial work. Efforts to work from the "concrete" could diminish, as could attempts to learn from actual experience. Although split grades need not be all bad, teachers tend to think they are, so efforts need to be made to convince them of possible benefits.

*Teaching staff: Knowing that teachers are having to be declared redundant is affecting morale. Seniority might be the main determinant for which teachers will keep jobs, and increased teacher age could hinder enthusiasm. Instructional aids may diminish in availability and might be poorly maintained. Professional development might be discontinued. The pupil-teacher ratio may increase.

*Students: Classroom morale is easily affected by teacher morale.

Curriculum Support Services

*Curriculum management: Program sophistication may diminish. However, department heads in high schools which receive students from "feeder" primary and junior schools could help in curriculum development in those feeders. Consulting staffs may be drastically reduced. Teachers' associations can assist in filling the consultant gap. Senior administrators might retire early. Competent, young, ambitious personnel might leave. Conflicts could arise between younger and older employees.

INTERMEDIATE DIVISION

Goals and Objectives

*Individual differences: There may be less rotary scheduling in the elementary intermediate grades (7 and 8). Meeting a variety of different student needs may then be handicapped because there may be fewer resource people available to help. Furthermore, with higher pupil-teacher ratios, the teachers will have to spread themselves further, so quality could deteriorate.

*Meeting objectives: Setting and meeting objectives for students depends on the number and kind of courses that can be offered, and at the secondary intermediate level (grades 9 and 10) there may be fewer courses. There could be difficulty in objectives being met by teachers who have been retrained to teach in other than their major content areas. The achievement of language-learning objectives could become a problem because English language students may be transferred to French language schools and vice-versa. Achieving objectives focussed on children's needs requires well-informed and committed teachers, not those inhibited by self-defeating attitudes.

*Community involvement: Local community involvement in setting priorities for schools could increase.

Curriculum Development

*Teacher involvement: Freeing teacher specialists from classroom teaching to develop curriculum might occur less frequently. One reason could be reduced availability of supply teaching money. Alternatives would be to hire student teachers to relieve the classroom teacher-developer,

and to shift the emphasis to the principal as curriculum manager to develop curriculum with staff.

Programs and Courses

New Courses: Fewer new courses may be implemented.

Options: There is a trend toward fewer options being made available to students. Some people think this is a worthwhile development.

*Special programs: Total French and English programs may no longer be possible, nor bilingual schools. This implies policy changes and could return the problem to the local community. Community priorities may not permit such policy changes.

Costly regular programs: Where shop, art and music programs are reduced, an alternative would be to use a secondary school teacher at the elementary school level if his time is not used adequately at the secondary level.

Classroom Instructional Environment

Teaching staff: An increased local school responsibility for curriculum development tends to overtax classroom teachers' stamina. Experienced teachers tend to feel that they need to do less and less curriculum development for their own classroom needs.

Curriculum Support Services

Community Involvement: Much greater use can be made of local community and other resources obtained at minimal cost, for example, involving outside art and drama groups in school programs.

*Cooperative services: Greater use can be made of sharing personnel expertise and strategies for material development among school boards.

*Curriculum management: Existing funds can be disbursed in unconventional ways, such that teachers with administrative competence can share a vice-principal's work load among them, and the money freed could be used for in-school curriculum and professional development.

SENIOR DIVISION

Goals and objectives

Courses: Even though it is anticipated that there will be fewer effects

on objectives in the senior division, some courses aimed at achieving these objectives may be discontinued.

Curriculum Development

Principals: They may have to face curriculum development responsibilities for which they are not trained. They may also have to take on a "head teacher" role for more than one school, which could sharply reduce the time they can allocate to developing curriculum.

Department heads: They may have to coordinate curriculum development for intermediate divisions outside as well as inside their immediate schools. Heads may also have more teachers for which they are individually responsible, hence less of their own time to lead curriculum development.

Curriculum evaluation: This is not likely to be affected since little is going on now. Increased training in curriculum evaluation is needed to plan development carefully, yet funds for such training tend to dry up when resources decline.

Programs and Courses

Options: With fewer options available, there may be more dropouts. Enrolment could decline more sharply. Individual student needs may not be met as well.

Regular programs: Students going on to post-secondary education often need prerequisites. Programs of such prerequisites cannot be discontinued.

Busing: Busing students long distance, to give them access to programs that become unavailable close to home, tends to create a problem with parents. This may also serve to increase parent involvement in setting school priorities.

Classroom Instructional Environment

(See other divisions)

Curriculum Support Services

*Curriculum management: Resource staff may become an expensive luxury. Consultants and supervisory officials are having their positions changed

to plug other gaps created by declining enrolment. For example, where some empty schools are being leased to other organizations to generate revenue, some resource personnel are becoming, in effect, landlords. Discontinuing resource staff tends to have a deleterious effect on teachers. Teachers tend to feel that what they teach is not important if resource assistance is not available. As a result, quality diminishes and parents get upset. Provincial help may be needed to keep resource staff.

Attitudes: Positive thinking could go a long way to dispelling the fear that goes with all these ill effects. Sometimes a problem draws forces together.

RECURRING EFFECTS AND POSSIBLE ACCOMMODATIONS

As our work proceeded, and as the above list testifies, several areas were crystalized which required the commissioning of research papers. Some of these areas appear to be in special jeopardy with declining enrolments and others appear to offer a possible avenue for the future. A preliminary listing of the questions of concern and each study is listed below. These will undoubtedly be altered as the work proceeds and we invite comments and suggestions from any interested party.

Special Education

This study seeks to answer five questions. How closely do trends in general population apply to special populations? What characteristics do classroom educators take into account in deciding that a student is handicapped? To what extent in Ontario education is the integration of exceptional children into regular classrooms being practised? To what extent do teacher education facilities exist or need to exist to prepare teachers to handle integration of special students? What data exists or ways are there for countering possible tendencies to divert funds away from special education?

Francophone Education

This study will contain three main parts. One, a description of Franco-Ontarian curriculum as it has evolved since 1968, the year of the

acceptance of the Beriault Report¹⁴² and the legislation on French elementary and secondary schools. Two, a description of probable and possible problems in maintaining and improving the quality of French as a first language curriculum. Three, suggestions for dealing with the problems in part two.

Early Childhood Education

This study seeks answers to three main questions. What are provincial needs for child care and early education as seen by institutions and agencies presently providing these services? When provincial needs and expectations are determined, what research findings and development efforts satisfy these needs? What do answers to questions one and two suggest for: a) the extent to which public schools might be able to accommodate programs for 3-4 year olds? b) the different roles required to respond to early education demands? c) the different kinds of training needed to fulfill these roles?

Multicultural Education

This study seeks answers to six questions. What are the trends in ratios of native-born enrolments to foreign-born over the past ten years? Which particular areas of the province are affected? Which other cities, provinces, or countries face similar problems? How have they coped? What changes have been made in school curriculum, materials, etc., to provide for the changes for both the newcomers and the former dominant group? What other special efforts have been made to increase cross-cultural or interracial understanding?

Native Peoples Education

This study seeks answers to five main questions. What are regarded as the most valuable and important trends in the education (including special education) of children of native ancestry in the past twenty years? Is there any evidence of threat to these improvements through declining enrolments? Is any threat predicted to these improvements

¹⁴² Beriault, Roland, The 1968 Report of the Committee on French Language Schools, (Toronto: Ontario Department of Education, 1968).

through declining enrolments? Could declining enrolment contribute to or facilitate any further desirable trends in education either about or for native peoples? What are specific county enrolment trends in the school population generally, and in children of native ancestry?

Languages: (1) English as a Second Language (2) French as a Second Language (3) Heritage Languages

For each language area six main questions are asked. What are organizational trends in enrolment (i.e. immersion, 30-minute periods, itinerant teachers) in the past five years and projected five years hence? What research has been done in this area? Are there any valuable aspects of new methods or organizational patterns in jeopardy during declining enrolments? Have school boards felt any impact yet of declining enrolments and if so, what have they done or do they anticipate doing? Do these changes imply any effects on teacher training, re-training, selection or retention? In what ways could declining enrolments be capitalized upon?

Adult Education

This study asks three main questions. What new areas of adult learning have developed or will develop as a result of declining public school enrolment and concomitant increasing numbers of adults? What is the actual and potential adult participation in various levels of education? What do different financing sources and mechanisms imply for the attitudes, styles and practices of educational management?

Community Schools

A paper on community schools will address the following issues: provisions for community use of school buildings, parent education programs, comprehensive and active volunteer programs, community recreational activities, an adult advisory body, an electives program open to the community, provisions for identifying and dealing with social problems of the area, communications instruments, and structures to provide for relationships with other social agencies.

Curriculum Development

Studies in this area are examining labour intensiveness and administrative strategies in curriculum management in Ontario school boards.

IV.

CLASSROOM INSTRUCTION, BOARD FLEXIBILITY AND QUALITY OF THE CURRICULUM

In this final section of the chapter on curriculum we draw attention to three factors which condition the quality of the curriculum: the quality of the teacher, the quality of curriculum materials and flexibility to adjust to new curricular circumstances.

The results of our history and the effects of our declining enrolment will be felt in concrete ways in the classroom, where the goals of curriculum are realized. It is worth noting that classroom instruction consists of an interaction of teachers, curriculum materials and students. It is not being over simplistic to note that high quality curriculum materials and high quality teachers are the essential prongs of a high quality curriculum. Of these the teacher is the more important since both good and bad materials may be taught more or less well and for more or less important purposes. Yet, both of these are likely to be influenced by declining enrolments. The review above of the effects of declining enrolments highlights this observation. Thus, if the quality of curriculum is not to suffer, it will be important to retain those elements of our curricular philosophy which must directly contribute to the maintenance of high quality instruction, i.e., high quality materials and high quality teachers.

Curriculum Materials, Declining Enrolment and Quality of the Curriculum

The history of materials writing does not, for the most part, reveal the best practices even though major curriculum reforms have periodically been attempted. Roughly speaking there are four strategies for developing materials: academics or committees of academics, teachers or people such as teacher educators who are close to the classroom, and teacher-scholar joint writing committees. The fourth strategy, given its greatest impetus by the Physical Science Study Committee project begun in 1955 in the United States, was the use of a joint writing and field testing team. It would appear that in Ontario the first of these strategies has been infrequently used, the second is our characteristic pattern, the third had a brief history during the time of the Ontario Curriculum Institute

and the fourth has had some use at the Ontario Institute for Studies in Education.

The preparation of high quality curriculum materials in Ontario has been in limbo since the introduction of the credit system and the expanded list of possible textbooks (Circular 14).¹⁴³ Publishers in this situation have had no guaranteed market for their materials. Indeed the problem became so intense that a Royal Commission on Publishing reported in 1972. With declining enrolments the marketing situation for publishers becomes even more acute and the commercial prospects even more limited.

There is serious doubt that even if a guaranteed market were created, by, for example, clearly specified guidelines and increased central control over the curriculum, the quality of the curriculum materials would improve. Publishers tend to use the second strategy for developing materials and there is an inclination to proceed hastily. For example, with the new intermediate division guidelines coming out, publishers throughout Ontario are hastily drawing up contracts with teachers and those close to teaching for the publication of textbooks. Some are aimed only at the Ontario market and some at other provinces as well, but in all cases the central direction is to structure the textbooks as closely as possible to the Ministry of Education guidelines. Traditionally, the writing strategy used by people contracted by this method is to identify one of the guideline topics, collect a series of university level textbooks that contain that topic, and then write a brief chapter by borrowing bits and pieces. Laboratory suggestions and other classroom experiences will come from the teachers' background, as will the level of writing.

Contrast this procedure with our fourth, development and field testing strategy. Walker, in a paper prepared for the Curriculum Development Task Force of the National Institute of Education in the United States wrote:

A major advance in curriculum development has been made over the past two decades. We have discovered how to do intensive pilot development and testing of early versions of curriculum materials so as to improve them substantially before they are marketed commercially. We know that this critical process requires frequent

¹⁴³ Ontario Ministry of Education, Circular 14 Textbooks 1978 (Toronto: 1978).

interaction between content specialists, curriculum designers, evaluators and teachers. We know that it requires careful trial in classrooms and intensive efforts to determine the effects of these trials on students. We know this, and yet we also know that the process is time-consuming and expensive. Whether we use our knowledge and continue to improve curricula by thorough trials and pilot versions or not depends upon the availability of funds and incentives for good pilot development.¹⁴⁴

It is our impression that the quality of curriculum materials is not likely to be high if teachers are expected to develop them "on-the-spot", as some have interpreted the intent of the curriculum decentralization concept. Nor are materials likely to be of high quality when publishers commission teachers and others to draught materials "on-the-fly". Thus, one of the central issues in declining enrolment, indeed it is a central issue at all times but more so when the number of children who will be using the materials is limited, is the mechanism for the development of high quality materials. While we have not yet explored the full range of possibilities in this direction, it would appear to us that some elements of the third and fourth strategies should be retained. In some smaller countries, for example, Israel, a special centre jointly operated by the Ministry of Education and a university serves as the central location for the organization of materials development. These and other mechanisms will be investigated by the Commission and, if our thinking is sufficiently advanced, recommended in the final report.

Teachers, Declining Enrolment and Quality of the Curriculum

It will be recalled from our history of Ontario's curriculum philosophy that the confidence and importance assigned to the teacher is central to Ontario's view of how curriculum should be developed. We have noted that this view is not in question, with the possible exception of concerns about the level of teacher expertise to undertake some development functions. There are three sets of issues that emerge when we consider how this plank in Ontario's curricular philosophy may be retained in a time of declining enrolments.

Teacher Morale: This is a topic dealt with elsewhere in this

¹⁴⁴ Decker, F. Walker, "Approaches to Curriculum Development", a paper prepared for the NIE Curriculum Development Task Force, (1976), p. 31.

interim report. Nevertheless it is important to note here that the attitude and zest with which the teacher approaches his classroom job will greatly influence the quality of learning. At the time of writing we do not have evidence to support this point but we take it, nonetheless, to be a commonplace.

There is, however, considerable evidence that teacher morale is low and may get lower. It can be argued that part of this problem can be laid to their own doorstep, particularly because of their exercise of collective bargaining rights and the inevitable tensions that have developed between teachers and their boards and the community at large. This particular issue will be dealt with elsewhere in our work. However, there is a curricular side to the coin, one which is directly related to the fact of declining enrolments and problems of job security.

With declining enrolments and the possibility of reduced curricular options in schools, it will be increasingly difficult for a teacher to specialize, especially at the secondary school level, in one subject at one level. It will become increasingly rare for a secondary school teacher to be a teacher of only one subject at one grade level. But elementary school teachers will also be influenced as multi-grade classrooms become the rule and as options such as music, sports programs and arts fight to retain a place in the curriculum. Furthermore, it is likely that one of the effects of declining enrolments will be an increased demand for integrated courses of study.

Specialization, which developed to some extent in the elementary school and to a larger extent in the secondary school because of large numbers of students and the credit system, will, it would appear to us, tend to be reversed. Thus, teachers who have been able to explore special areas of personal interest may now find themselves required to teach more general courses. As a result the question of job security for teachers has two new faces -- does a job exist? and can the teacher shift from specialized to more general teaching loads?

One of the issues confronting us, then, is to find ways of increasing teacher morale through humane tenure and reassignment mechanisms. These factors are noted, of course, elsewhere in the report, but we think it

advisable that strong attention be drawn to the curricular consequences of not adequately dealing with the problem. From the point of view of curriculum it is not merely a matter of teachers as an isolated group, but one of the quality of classroom instruction and of the curriculum.

Teachers and Materials: It appears that there has been confusion in Ontario about what decentralization means for the role of teachers in the development of curricula. At one extreme it appears the teachers were expected to develop their own curriculum materials, whereas in other cases the board took over and teachers were expected merely to implement board courses of study. Figure 4.3 presents results of an analysis of the literature on teacher role and curriculum development in North America over the past twenty years.¹⁴⁵ Roughly speaking, the history goes something as follows.

Considerable confidence was at one time placed in the quality of materials. A variety of "teacher-proof" materials were developed to ensure that their ideas were realized directly in the classroom. It was soon realized that this was not effective on a broad scale. Teachers have considerable impact and influence on materials presented to students. For this reason they have frequently been labelled as "conservatives" and "inhibitors of change". As a result it became common practice on an international basis to have extensive workshops and other kinds of implementation activities in an attempt to convert teachers to the ideas built into the curriculum. When even this failed to work selected teachers were brought in on writing teams; some teachers even proposed action research activities as mechanisms for teacher conversion to textbook purposes.

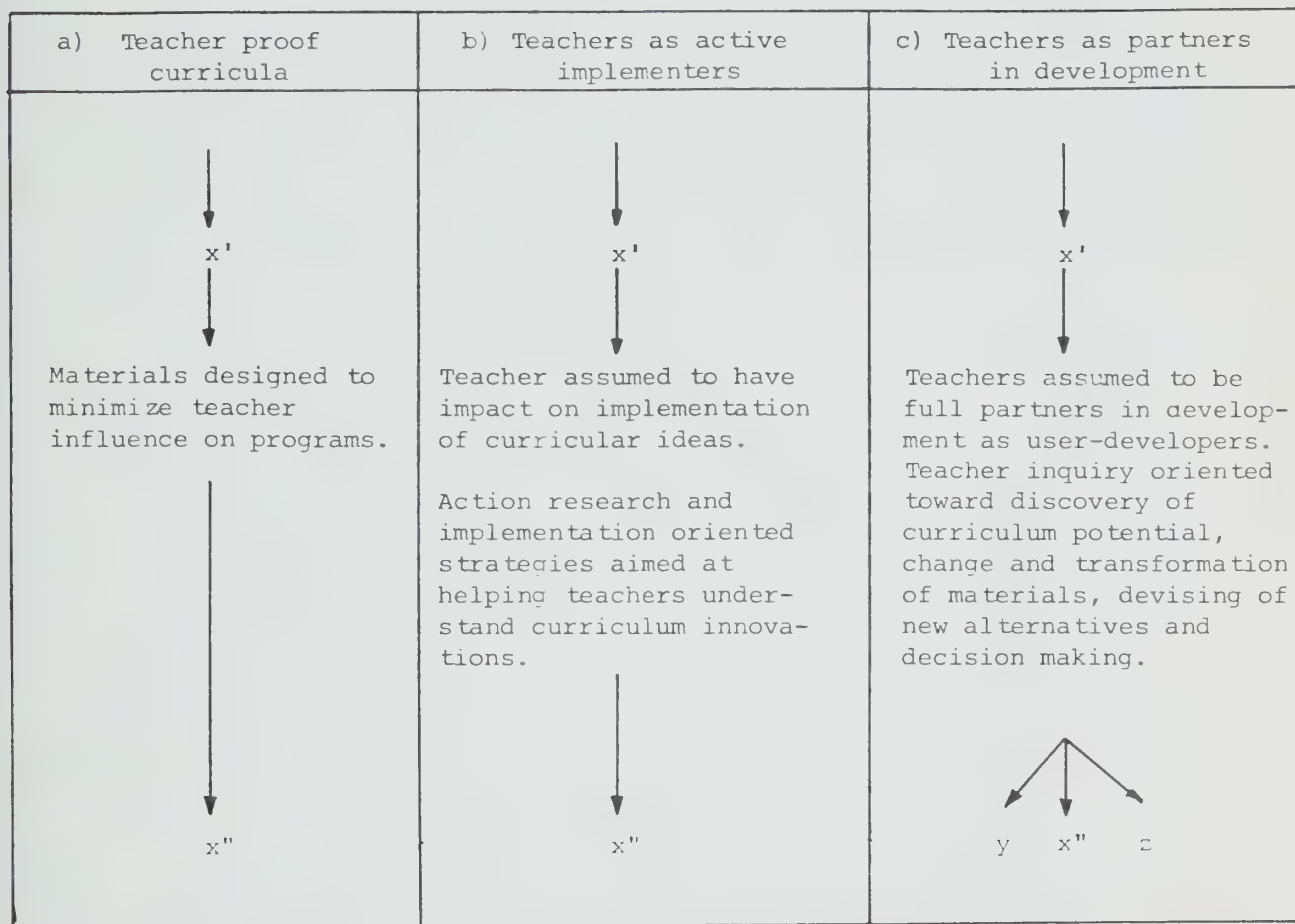
While many have bemoaned this attitude of teachers, others have taken it as a concrete fact to support the philosophy of decentralization of curriculum planning with a highly-visible role for teachers. Willy-nilly, teachers do modify and adapt curriculum to their local circumstances. In short, they do things "their way". Ben-Peretz has taken this notion a step further when she describes the "potential" of a set of curriculum materials.¹⁴⁶ According to Ben-Peretz any given set of curriculum materials may be taught

¹⁴⁵Connelly, F. Michael and Miriam Ben-Peretz, "Teachers' Roles in the Using and Doing of Research and Curriculum Development", paper in preparation.

¹⁴⁶Ben-Peretz, Miriam, "The Concept of Curriculum Potential", Curriculum Theory Network 5:2 (1975), 151-159.

Figure 4.3

Possible Interactions Among Teachers,
Curricula and Research Results



Legend:

- x - developers' curricular ideas
- x' - translation of ideas into curriculum materials
- x'' - implementation of curricular ideas in classroom
- y, z - alternative versions of curricular ideas

may be taught in more than one way to achieve more than one curricular goal; there is not simply one set of goals for one set of curriculum materials, but rather an array of possible goals, depending on what the teacher does with the materials. This is a powerful notion that advocates a reexamination of the question of the function of teachers and others in curriculum development.

Broadly speaking, it is possible to imagine a model of curriculum development in which the best possible materials are developed by the best mechanisms we can afford. These materials would then be put into the hands of teachers who would be expected to adapt and adjust those materials to their own purposes, in effect to realize a variety of potentials by bringing different curricular goals to them. In this way high quality materials are not tied to the rigid and abusive notion of having teachers teach from the text and implementors can worry less about whipping teachers into line with textbook intentions. Furthermore there is an economic saving here. The expensive, time-consuming and emotionally draining implementation activities, which are rarely as effective as planned, would no longer be crucial. What would be crucial would be further in-service education of teachers, a point to which we now turn.

Continuing Teacher Education: Our account of teachers and materials in the situation of declining enrolment highlights a number of continuing education needs for teachers. One of these is the expected need to educate teachers for areas in which they are not now currently teaching. A teacher of biology may have to pick up a course in chemistry and the science department may have to reorganize itself along integrated science lines. Furthermore, as individual students and teachers take on increasingly important functions in the development of curriculum, in-service education opportunities in curriculum development will be required. Thus, it appears that in-service teacher education will, at the very minimum, probably need to be organized for three reasons; new subject matter for teachers, reorganized subject matter and curriculum development.

Board Flexibility, Declining Enrolments and the Quality of the Curriculum

Our interviews with boards have made it clear that, in general, flexibility to accommodate to changing circumstances is much greater in an expanding

system new possibilities are consistently emerging. But when fewer children and less money flow into a system it becomes difficult to make adequate accommodations. As Watson noted, this is especially true at the secondary school level where specialization has occurred.¹⁴⁷ There is some indication as this report is written, that recent legislation on collective bargaining (Bill 100),¹⁴⁸ and Regulation 191¹⁴⁹ which specifies certain board requirements in areas such as special education, and the proposed regulation governing elementary and secondary schools which will supersede Regulation 191, further reduce the flexibility of boards in a declining system. As was the case with teacher morale, this matter is dealt with elsewhere in this interim report. Nevertheless, we wish here to draw attention to it, since boards and schools will need a degree of flexibility to accommodate themselves adequately to the effects on curriculum of declining enrolments.

At its extreme, minimum flexibility will result in a simplistic equation between declining enrolments, declining budget and lopped-off courses and programs. It may be that some form of advisory and consulting mechanisms will be required to assist various parties at the local level as accommodations are planned to declining enrolments. We need to ensure that our curricular philosophy is adhered to, or modified in deliberate ways, and that the quality of instruction is maintained at the highest possible level. In this, flexibility will be required.

¹⁴⁷Watson, Cicely, "Address to the Opening Conference of the Commission on Declining School Enrolments in Ontario", (Toronto: OISE, October 14, 1977).

¹⁴⁸Ontario. Laws, Statutes, etc. An Act Respecting the Negotiation of Collective Agreements Between School Boards and Teachers, 1975. 24 Eliz. 2, ch. 72. Statutes of the Province of Ontario, 1975. (Bill 100.)

¹⁴⁹Ontario. Legislative Assembly, "Regulation 191 Under the Department of Education Act", in The Revised Regulations of Ontario, 1970, Vol. 1 (Toronto: Queen's Printer, 1970), pp. 1107-1122.

Chapter 5

Educational Administration in Ontario

I. INTRODUCTION

The purpose of this chapter is to describe in general terms the administrative structure of school systems in Ontario, especially at the central office level of both public (elementary and secondary) and separate school systems, and to show how certain external organizations impinge upon that structure and influence its performance.

School systems in Ontario, as in most other jurisdictions around the world, are essentially bureaucratic. Positions and clusters of positions near the top of the hierarchy hold more power and influence than those lower in the hierarchy. School systems are also characterized by the existence of written rules and regulations which impart a measure of impersonality to decision making. On the surface at least, appointments are made on the basis of training and expertise.

The degree of bureaucracy, however, is constrained by two factors. First, quite apart from the formal structure of the system, there is an informal structure which modifies the bureaucratic authority of administrators and operates basically through ancillary organizations and groups and through interactions among administrators across the province. Second, teachers, who are the equivalent of workers in an industrial setting, are at least "semi-professional"¹⁵⁰ and thus the relationship between the teachers and administrators is not strictly hierarchical but is characterized by what Parsons¹⁵¹ would call a professional relationship. Part of the explanation for the growth

¹⁵⁰ Etzioni, Amitai, Modern Organizations, (Englewood Cliffs: Prentice-Hall, Inc., 1964), p. 27.

¹⁵¹ Parsons, Talcott, "Some Ingredients of a General Theory of Formal Organization", in Administrative Theory in Education, ed. Andrew W. Halpin, (New York: MacMillan Co., 1967).

of "teacher power" is the tension resulting from efforts of bureaucrats to exercise bureaucratic control over teachers who, by virtue of their training and skill, do not respond in a bureaucratic fashion.

A key factor in shaping administrative structure in Ontario is size. School systems in Ontario for the most part are large, as a result of reorganization in 1969. In no other jurisdiction in North America are there as many systems with pupil populations of more than 20,000. Some U.S. states, such as Florida and Maryland, are organized in county systems, but the incidence of large districts is much smaller than in Ontario. New Brunswick is organized into a few large systems but the total pupil population is far smaller than in Ontario. The fact of size has had a tremendous impact on the kinds of ancillary organizations that exist, on in-service efforts and on the delivery of basic services.

II. DEVELOPMENT OF EDUCATIONAL ADMINISTRATION

According to the Directory of School Boards¹⁵² there are 194 school boards in Ontario. Of these, 77 are boards of education and 48 are Roman Catholic county and district school boards. The remaining 69 systems are special in nature, for example, district and area boards in the far north with extremely small pupil populations. These are not important facts in themselves, but they assume importance when compared with the situation only a few years ago. In 1948 there were 4,532 school boards in the province. In 1960 there were 3,676 school boards in Ontario, and in 1967 there were 1,490 boards.

Since the dramatic decrease in the number of boards has had an impact on the way school systems are governed, it is appropriate to study the relationship between the government and local jurisdictions.

The Minister of Education, through the British North America Act, has responsibility for the conduct of education affairs in the

¹⁵² Directory of School Boards, 1977. Ministry of Education, Mowat Block, Toronto, Ontario.

province, although he has delegated substantial authority to local boards. The regional offices of the Ministry, in effect, constitute the Minister's presence in local areas.

Before 1969 the large number of jurisdictions impelled the government, particularly under the early leadership of Egerton Ryerson, to administer schools centrally through a system of provincially employed inspectors who were often the administrators of small districts. Even in fairly large districts the chief administrator for academic affairs was often provincially employed. But small districts also had a tradition of local control, a tradition deeply ingrained in the consciousness of the citizenry and still today the focus of discussion among parents and trustees. As a result the large number of small districts had the contradictory effect of heightening local and central control at the same time, engendering a built-in conflict between the Ministry (in the person of the inspector) and the local board (in the persons of the board chairman and the business administrator).

Even more crucial for understanding the structure of educational administration in the province today is the effect of increased school district size on central office organization. In general (specific discussion will follow in the next section of this report) the large districts moved toward what is called a "tall" organization, as opposed to a "flat" one. A tall organization has many levels of authority between the lowest level of the organization and the highest, while a flat organization has few levels. For example, one large county board of education (with perhaps 70,000 students) had seven levels between the teachers and the board of education. These are department head or coordinator, vice-principal, assistant area superintendent, area superintendent, associate director and director.

With the growth of size of school jurisdictions, the function of administrators in the province has shifted from direct supervision of classroom activities to the management of the school system.

In addition to the large number of second and third level positions created with the large boards, great numbers of coordinative and other staff positions developed in large systems. There were subject matter specialists, coordinators of specific areas such as special education, research units and, of course, complex business organizations for the administration of budgets amounting to many millions of dollars each year. At the same time, there was still only one administrative head and one board of education. The immediate effect in 1969 of this situation was a period of confusion, sorting out, modification and learning. Individuals who moved into these new positions of responsibility had to learn how to function effectively without much prior experience in such a large arena. Board members had to force themselves to pay less attention to small details. Information overload was common, and decision making was often slow and unsystematic.

The response of school administrators and trustees to these problems was to engage in extensive in-service training. Beginning in 1969, various education agencies, including the Ministry of Education, OISE, the Ontario School Trustees' Council and school administrators (later organized into the Ontario Association of Education Administrative Officials) cooperated on a series of regional and provincial conferences and workshops at which management problems were considered and strategies and procedures for dealing with them worked out.

In the ten years since the reorganization of school boards into larger units, there has been no systematic effort to evaluate the results. It is not known whether the delivery of education services under this system is better than it was with many more jurisdictions. It remains to be seen, also, whether the larger units will appear to be better prepared to deal with drastic declines in pupil population over the next two decades.

III. CURRENT ADMINISTRATIVE STRUCTURES

Very little empirical work on the structure of administration in Ontario has been done. The following is based mainly on a report prepared originally for the McCarthy Commission on the Costs of Education and subsequently published in two journals. The study, of a representative sample of Ontario public and separate school systems, was authored by Hickcox, Ducharme, Ryan and Joyce, completed in 1973 and titled The Shape of the Central Office: A Study of Administrative Staffing in Ontario.¹⁵³

Four types of organizational patterns were identified:

(1) Pure Area: The district is divided into areas based on geography or some other criteria, such as elementary or secondary jurisdictions. An official is responsible for each area and reports directly to the chief executive officer.

(2) Tiered: There are functional superintendents responsible system-wide for curriculum, students services and the like. There are area superintendents at the next level reporting to one of the functional superintendents who in turn reports to the chief executive officer.

(3) Combination: Superintendents have system-wide functional responsibilities as well as area responsibilities.

(4) Functional: There are no area superintendents. Principals are responsible for the development of common programs in their own areas and report directly to the system-wide functional superintendents.

Table 5.1 reports the distribution of districts and compares the distribution with earlier data.

¹⁵³ Hickcox, E.S., D.J. Ducharme, D.R. Ryan and H.D. Joyce, The Shape of the Central Office: A Study of Administrative Staffing in Ontario. Unpublished report, Department of Educational Administration, The Ontario Institute for Studies in Education, (Toronto, 1973).

TABLE 5.1

SCHOOL SYSTEM FREQUENCY
BY ORGANIZATIONAL TYPE: 1971 and 1972
REPORTED IN PERCENTAGES

| Year | Organizational Type | | | | |
|------------------------|---------------------|--------|-------------|------------|-----------|
| | Pure Area | Tiered | Combination | Functional | Not Known |
| | % | % | % | % | % |
| 1971 *n=63 | 7 | 47 | 10 | 30 | 8 |
| 1972 *n=29 | 7 | 41 | 34 | 10 | 7 |
| (Present study sample) | | | | | |

The sum of the percentages is not 100 because the numbers were rounded off.

* n = Number of school systems surveyed

In two categories, combination and functional, there was considerable shift. The proportion in the combination category increased by about 25 percentage points while the proportion in the functional category decreased by about 20 percentage points. The proportion in the other categories remained about the same.

Within the combination and tiered categories, an organization developed, especially in the larger systems, called the "family of schools." An area or region of a system was considered a "family" with elementary schools feeding into a particular high school, or in some cases, several high schools. An area superintendent was placed in charge of this "family" which for the most part operated as a self-contained school system in terms of staff appointments, distribution

of resources, evaluation and a myriad of other functions. This became a means of sustaining some sort of local identity within the larger system.

Although we do not have precise data, it appears that this concept has become pervasive in districts of more than 15,000 students. Smaller districts generally operate with either a pure area or a pure functional plan with school principals performing some functions held by central administrators in larger systems.

A major question that always confronts decision makers in education is, What is the appropriate size for a central office? How many administrators are needed? Although there is no foolproof way yet to determine absolute size, just as there is no way to determine from an education viewpoint the optimum class size, there is useful information to be gained by comparing systems. In the study serving as a base for this discussion, extensive analysis of central office staffing per pupil was carried out.

Table 5.2 reports the average number of central office staff per thousand students for systems in the sample. Central office staff includes academic officials, business officials, academic and business support staff, coordinators and consultants, clerks and secretaries. In general, the category included any person who spent less than 50% of his time in any one school in the system. Excluded were categories of staff such as itinerant teachers, bus drivers and custodial staff.

In terms of size alone, the lowest ratio boards tended to be the medium sized ones. That is, there were more central office personnel per thousand students in both small and large systems. Although these differences are not startling in magnitude, they are in line with other studies in Alberta and in the U.S. suggesting that, at some point, economies of scale come into play -- for a while. When a board becomes large, it develops the highest ratio of central office staff per thousand students. As noted earlier, the large boards generally are the ones that have adopted relatively tall organization structures.

TABLE 5.2

AVERAGE NUMBER OF CENTRAL OFFICE STAFF PER THOUSAND STUDENTS
BY STATUTE STATUS AND SIZE OF SYSTEMS: 1972

| School Board Size | | | | | | | |
|------------------------------|----|--------------------------------------------------|----|----------------------------------------------------|----|-------------------------------------------------|----------------------------------|
| Statute Status | n* | Small (under 15,000) Staff per thousand | n* | Medium (15,000-30,000) Staff per thousand | n* | Large (over 30,000) Staff per thousand | Average Staff per thousand |
| Boards of Education | 4 | 3.50 | 7 | 3.47 | 7 | 4.36 | 3.82 of 18 offices |
| Separate School Boards | 6 | 4.73 | 4 | 4.43 | 1 | 4.29 | 4.58 of 11 offices |
| Totals | 10 | 4.12 | 11 | 3.95 | 8 | 4.32 | 4.20 of 29 offices |

*n = number of boards

Comparing public and separate school boards, we find some rather strong differences. Public school boards had a lower ratio than separate school boards by about 0.80 per thousand students, quite a significant difference clearly evident for the small and medium sized boards. There was only one large separate board in the sample and it cannot be said to be representative.

Assuming that it was possible to generalize from the sample to the total population at the time of the study, some general observations can be made.

The tendency for medium sized boards to be the most efficient may be due to economy of scale. Small boards are required to have a minimum number of people working, even when the population doesn't

warrant it. Large boards, on the other hand, reach a point where the bureaucratic structure eats up resources out of proportion to work performed. That may be why large boards cost the most, or it may be true that larger boards offer more services than smaller ones with resulting greater need for central office personnel.

The differences between public and separate school systems are difficult to explain without further study. One possible explanation is that since separate systems tend to be smaller, there will be generally smaller schools, requiring more specialized functions to be carried out at the central office. But small public school boards, with theoretically the same situation, operated far more efficiently, according to these data.

The study examined in some detail other variables related to organizational structure. Without going into the findings exhaustively, we present a brief summary.

(1) There is a slight curvilinear relationship between size of system and central office. At some point we may be able to establish an optimum size for a central office. Given that no studies yet conducted anywhere have shown conclusively that educational output has any relationship to size, this could be an important finding, suggesting that decisions on size could be made purely on a cost basis without hindering the potential for educating children.

(2) It is the larger boards which have the highest administrative staff-pupil ratios and the highest cost per pupil.

(3) In general, separate school boards have higher ratios and higher costs per pupils than public school boards. Possible reasons range from the necessity to hire religious education consultants, to the fact that separate systems are mainly elementary, to the idea that separate school systems generally have smaller schools requiring more central office support. We do not have data to comment on these possibilities.

(4) The data on job categories show that coordinators and consultants and clerks and secretaries have high ratios and costs

compared to other categories. Senior officials, both academic and business, have relatively low ratios and costs. Whereas the emphasis on coordinators and consultants may be of concern, it is at least true that these positions bear a more direct relationship to education programs than some of the other categories.

(5) Increases in numbers of central office staff since 1969 considered on a per pupil basis are very large, especially when compared with pupil population increases. It must be assumed, however, that the beginning point in 1969 found most central office staffs undermanned. The increase for coordinators and consultants is less than for most other categories, and in some instances shows a decrease in percentage terms from 1969.

(6) On a number of other variables the following generalizations are possible: high ratio boards are found in urban areas, tend to have tiered as opposed to combination administrative structures, are located in the eastern rather than the northern and southern part of the province, and tend to have a strong French influence.

It is difficult to determine what has happened administratively since the 1973 study without resorting to conjecture. We have noted earlier that larger systems seem to have adopted the family of schools concept. Some boards are considering the consolidation of some of the families in the face of declining enrolments. Economic stringencies have caused some school districts to reduce the number of central office administrators, but we cannot document the extent of this or expect it to be general. As a matter of fact, one director of a large northern board said in a recent interview, somewhat to our surprise, that the number of administrators at the central office would probably remain the same in his district, even in the face of a severe decline in enrolment. He claims that because of geography, functional duties and other factors, it would take as many central office personnel to administer a 20,000-pupil system as it would a 30,000-pupil system.

Rather than a reduction in force at the administrative level, at least up to this point, there has been a shifting of functions. The growth of power of the teacher federations and heavy emphasis on contracts and negotiations has shifted energies at the central office level. Budget preparation, negotiations and legal activities growing out of contract disputes occupy more and more administrative time. Since it is common these days to involve all levels of the system in decision making, administrators, who in actual numbers are in a minority in a district, find themselves heavily engaged in committee work, more so than in the past. Even the appointment of committees is time consuming because of the necessity to ensure that all appropriate constituencies are represented.

Prior to reorganization in 1969, decision making in school systems was generally highly centralized, or shared by two offices. Educational matters usually were decided by the superintendent (in separate school systems) or the director (in public systems) or by the provincially employed inspector in those systems not large enough to employ their own administrator. Financial matters were the responsibility of the business administrator who might or might not be professionally trained. This individual often was a board member or a former board member who acted as the treasurer of the district. In a sense, there was dual control, a concept which, with one exception in the province, no longer characterizes any system. Whereas some administrators in a system, e.g. principals and coordinators, might be consulted about education policy, there was little sense of collaborative or participatory decision making elsewhere. The typical administrator or business official considered himself totally responsible for both making the decision and implementing it.

Since 1969 a major shift in decision-making patterns has appeared. Most boards now operate with an executive council or administrative council, consisting of the top supervisory officers in the district, including the business administrator. While most chief executive officers retain veto power, the decision-making process is generally collaborative with involvement of top administrators in the

district. The thrust toward collaboration has been strengthened by the increasing complexity of school operation. It is virtually impossible, given current political forces, complex curriculum issues and complicated budget processes, for one individual to make all the important decisions in a system.

In many jurisdictions the secondary school principal has assumed a stronger position as manager of the school. Traditionally he has hired staff, but now he assumes the responsibility for budget in all areas except teachers' salaries. The elementary school principal, who has become more highly qualified, now manages staffing functions as well as budget, and is becoming more skilled in curriculum development. In both cases supervision of teachers is done almost entirely by the principal, with the area superintendent acting as a back-up or advisor.

A significant number of systems (no precise data are available), following recommendations contained in the manual Developing School Systems,¹⁵⁴ employ an elaborate decision-making process involving a series of overlapping groups. In this way, principals and teachers may have a significant part in the process. The Hastings County Board of Education, for example, has developed such an elaborate system.

It is probably fair to say that the power and authority of the central office in most school systems has been eroded by the emergence of organized teacher federations. In addition, community groups in some localities have assumed influence in certain kinds of decisions, especially those affecting individual schools.

The traditional alliance between the school board and the chief administrator for purposes of decision making is in a state of flux. It is difficult to imagine what processes will emerge as

¹⁵⁴Greenfield, T.B., J.H. House, E.S. Hickcox and B.H. Buchanan, Developing School Systems: Planning, Organization and Personnel, (Toronto: OISE, 1973).

school systems face the major decisions that will accompany drastic enrolment declines.

IV. EXTERNAL INFLUENCE STRUCTURE

Understanding the administrative operation of school systems in Ontario requires some awareness of the impact of ancillary or external forces. Four such forces will be discussed briefly.

1. Certification and Training

In order to hold a supervisory officer's position in Ontario, an individual must hold a Supervisory Officer's Certificate. Generally such positions carry titles such as director, superintendent, business official, assistant superintendent. Coordinators and principals are not required to hold supervisory certification.

There are two types of supervisory certificates. One applies to academic officials and requires that a written and oral examination conducted by the Ministry of Education be passed and that the applicant have seven years of successful teaching experience, a permanent teaching certificate valid in Ontario (requiring Ontario teaching experience), and either one of several School Principal Certificates or a Master of Education degree. The second supervisory certificate applies to school business officials. The applicant must pass a written and oral examination administered by the Ministry and have seven years of successful experience as a business administrator including two years in the employ of an Ontario board, a B.A. degree or equivalent and either a master's degree (in education or business administration) or a certificate from the Certificate Program in School Management offered by the Ontario Institute for Studies in Education.

Although we have not examined in detail the intricacies of the certification regulations (and there are many), the foregoing description provides enough base for some comment.

First, control of certification is with the Minister of Education, although some encroachments on his absolute power are evidenced through the provisions for course work and degrees. It is officials at the Ministry, rather than practicing administrators or universities, who determine, through the examination process, exactly who will hold supervisory certificates. Without commenting on whether this is a good thing, it is clear that the values held by Ministry officials about skills and attitudes required for the practice of administration in Ontario, are the values which determine selection and ultimately the characteristics of practicing administrators.

Second, the regulations ensure that a substantial part of every supervisory officer's experience will have been in Ontario schools. Although the Minister has made an exception in one case within the past year, there is practically no chance for administrators from outside the province to obtain top positions here without years of apprenticeship. For all intents and purposes, it is a closed shop. Whereas the regulations in Ontario are generally more restrictive than in most other jurisdictions in North America, the size of the province probably ameliorates to some extent the negative aspects of inbreeding.

The notion of specialized training for administration is of fairly recent origin. The current regulations, for example, date from 1974. Prior to that there was no requirement specifying an advanced degree.

To understand how administrators are trained in Ontario, one must examine the essential career pattern. The typical administrator was first a teacher. As he moved to a principalship, he may have taken some courses in administration at a university, but basically he worked through a series of Ministry-sponsored courses and workshops, leading to the Principal's Certificate. More recent holders of the Supervisory Officer's Certificate may have obtained master's degrees in administration at OISE or one of the six other universities which have developed programs in educational administration. A very few have obtained doctorates either at OISE or at Ottawa or at some other university outside the province.

There have been some distinct shifts in recent years in the content of formal training. In the early years aspiring administrators were exposed to courses which emphasized what is generally termed the "nuts and bolts" approach. The short courses and even the university-based courses dealt with practical aspects--how to administer the custodial staff, how to prepare a budget, how to supervise teachers, how to build the timetable. In more recent years the emphasis in both Ministry-sponsored and university-based experiences has moved to concern with human relations and an understanding of more theoretical concepts (i.e. leadership or economics or political science). In addition, there is now more concern with developing an understanding of planning principles, coordination of staff, decision making, innovation and conflict management. In short, there is a drift toward a management orientation as opposed to a master-teacher orientation.

In the mid 1950's a summer course for secondary school principals was established by the Ministry. A second course was required in the mid 1960's, as well as a course for elementary school principals. In the early years these courses dealt with the techniques of operating a school, but later included leadership and management theory. At present all new appointees must have the required qualification.

In the general sense, however, formal training for administration in Ontario is not really systematic. There is little coordination among training institutions and little sense of any policy to guide the content of administrative training. The result, more so now than in the past, is a sense that the certificate does not imply that the holders possess a common body of knowledge, although the constraints brought about by the examination and experience requirements imply a common set of values and a common ideology.

2. The Ontario Association of Education Administrative Officials

Since 1969 supervisory officers in Ontario have banded together into a professional organization called OAEAO, which has gained strength each year through a variety of activities. It employs an executive director and a small staff. With somewhat limited resources (potential membership is only about 600), it has developed position papers on a number of important issues, made representation to the Ministry for purposes of influencing policy and engaged in in-service activities for its members through its annual convention and a workshop series. Further, it has acted as a vehicle for handling grievances for its members who encounter problems with board or teacher groups.

There is no research to demonstrate the impact OAEAO has had on the functioning of school boards in the province, but it would appear that its increasing concern with provincial policies affecting administrative functioning and the welfare of its members has potential for influencing the thinking of most administrators.

3. The Ontario Teachers' Federation

Elementary and secondary school principals must be members of the teachers' union. At times when sanctions are being imposed on the boards by the union, the principal is caught between the two forces. On the one hand he is manager of the school by law and responsible to the employer. On the other hand he is a member of the organization which is striking or working to rule. Traditionally he has been the senior teacher in the building under his jurisdiction, and as such he has been a member of the teaching body. Events of the last few years have made it difficult to maintain this dichotomy.

4. The Ontario School Trustees' Council

The Ontario School Trustees' Council is an umbrella organization for trustee organizations in the province. Even before 1969, OSTC engaged in extensive in-service activities for school board members and top administrators. As a result of a long series of conferences, workshops and meetings dealing with the relationship between trustees and administrators, activities that were shaped to an extent by the

ideas of practicing administrators in the province in cooperation with university, Ministry and trustee personnel, a rather close relationship between OSTC and administrators on the political level has developed.

Although the emergence of OAEAO and some internal difficulties among constituent trustee organizations has diminished the intensity of this cooperative relationship, there are strong calls from both administrators and trustees for increased interrelationships. Both groups see the logic of continued and increased cooperation, especially on the political front, and one might expect such cooperation to increase in the face of problems related to declining enrolments.

Questions and Issues

1. What changes, if any, should be made in the allocation of control to the central and local authorities, or are the school boards really no more than "creatures" of the provincial government through the Ministry of Education? To what extent should indirect central control, through guidelines, cost ceilings, incentives, regulations, be continued and extended?
2. At the local level, should financial decisions rest with the school board, or should a form of referendum of the local ratepayers be introduced? Also, what changes need to be made now in the relationships between school boards and local or regional municipal authorities?
3. Can reasonable ratios be established between size of administrative staff to size of instructional staff, number of local units, and school enrolment?
4. Are there too many education associations, giving rise to fragmentation of authority and influence as well as conflict of interests?
5. What is the most appropriate form of training and certification for management of decline (administrators, supervisors, principals, trustees, etc.)?

CHAPTER 6

THE TEACHING FORCE IN ONTARIO: CHARACTERISTICS AND ESTIMATES OF PRESENT AND FUTURE SUPPLY AND DEMAND

Contrary to our original expectations, this chapter must of necessity be brief and based only on existing data. As indicated earlier I have been unable to secure in time projections of population for the province and its counties and districts by ages based on the 1976 census results. Moreover, I still do not have the figures for the enrolment in this province by boards and by grades for September 30, 1977, despite great efforts made to secure them in time for my interim report. Some of the specific data on teacher characteristics is also not up to date, so that a full report on these topics must be prepared and issued separately as soon as the needed data become available. At that time, too, the projections given in this section will be updated and extended forward in time.

Teacher Education in Ontario

For the purposes of the Commission, a detailed history of pre-service teacher education in this province has been prepared by Dr. Willard Brehaut and Dr. Al Fiorino but need not be included here. Their report will, however, be published by the Commission and distributed widely at a later date. For the present section, it is sufficient to note that all prospective teachers entering the Ontario Teacher Education Colleges (OTEC), at Hamilton and Toronto, or the faculties of education at the University of Windsor, Brock University, the University of Western Ontario, York University, the University of Toronto, Queen's University, Université d'Ottawa, Laurentian University and the Lakehead University must either hold an acceptable university degree before entering the teacher education program or secure one as part of the program of teacher education.

The history and present stage of development of in-service or professional development programs are not so well known and, in view of the enhanced importance of such programs under present conditions of declining enrolment, the following brief statement has been prepared for us. Readers

will note that the history of professional development is a long one, extending back over 75 years now, and within the last few years, as the report shows, the Ministry of Education has established a new policy which will greatly increase the provisions for professional development of teachers through in-service education.

The History of Professional Development in the Ministry of Education

Since 1902, the Department of Education has been providing in-service or professional development courses for persons holding a basic teaching certificate valid in Ontario schools. The courses were to provide opportunities for specialization and assist teachers to keep abreast of the developments in the profession.

By regulation, courses for department credit had to be of five weeks duration. In 1975 the regulation was changed to a minimum of 125 hours of instruction for a credit.

Previous to 1957 locations for the Department summer courses were restricted mainly to London, Hamilton, Toronto, Ottawa and Thunder Bay areas. In 1957 courses were established where there was sufficient demand and within the restrictions of the budget. This was to cater to the teachers who were unable to leave home for five weeks to attend classes in an urban centre.

In 1971 the Department offered twenty-two different types of courses and fifty-one summer schools located in twenty-five centres. The factor which contributed to this growth was the establishment of new standards for an Elementary School Teacher's Certificate in 1962. In addition, boards tended to tie their salary schedules to the types and numbers of specialist certificates held. In this period, the number attending summer courses reached 14,807.

In a response to the McLeod Report, in the school year 1970-71 arrangements were made for the universities to be responsible for operating courses in physical and health education and guidance and in 1973 dramatic arts was transferred to the universities. In 1972 the Professional Summer Courses for Teachers Booklet included both the Ministry of Education and the Colleges and Faculties of Education summer course programs. In 1973

the booklet was issued in both French and English for the first time. Also in 1973 the change from the Department of Education to the Ministry of Education took place.

In 1964 the Minister granted permission to school boards to sponsor winter courses for credit under the following terms:

The sponsoring board submit to the Department an application on the forms provided indicating the names and qualifications of the instructors, the dates and times of the sessions and outlines indicating the content of the courses. It is interesting to note that in the winter of 1964-65 there were 519 enrolled and in 1970-71 the figure is 8,273 candidates.

About 1972, because of the adverse effect of the winter course announcements on planned summer courses, it was decided that the board-sponsored winter courses would be controlled by the offerings of both the universities and the Ministry of Education summer courses.

In the spring of 1972 the Curriculum Services Branch was formed and one of its responsibilities was the professional development of the educators both within and without the Ministry. Previous to this move, the funds for the university courses were transferred from the Ministry of Education to the Ministry of Colleges and Universities for those courses conducted by the universities.

By 1976 the Ministry of Colleges and Universities had decided they would fund only courses that were for degree credit. Such courses that were not for degree credit were returned to the Ministry of Education for funding. In 1976, the Professional Development Section in the Curriculum Services Branch became the Professional Development Branch carrying the same responsibilities and several additional ones, such as supervisory officers' examinations.

In 1957, the first five-week school principals' course was operated and issued certificates valid in high schools, collegiates, vocational schools and composite schools. In 1966 the first Elementary School Principals' Course was conducted and graduates received the Interim Elementary School Principal's Certificate. This course and Part I of the Secondary School Principals' Course were offered by the Ministry in

three centres, the University of Western Ontario, University of Waterloo and Queen's University campuses. These courses are now offered in seven different centres and for the first time in 1978 there will be a course that is entirely in French rather than bilingual.

Over the years since 1962, the majority of persons attending the summer courses has been elementary school teachers who wished to increase their category and hence their salary. At the present time, both elementary and secondary teachers appear to be adding to their capabilities as teachers to cope with job redundancy and falling enrolments.

Ministry of Education Plans Relating to Future Professional Development Activities and Programs

With the establishment of a new Professional Development Branch in September, 1976, the Ministry of Education has embarked upon a comprehensive review of past policy and a laying of foundations for an integrated approach to professional development of teachers and other educators, all a worthwhile course given the new realities faced by Ontario in the 1980s.

The Professional Development Branch is pursuing both short-term and medium-to long-term plans in an effort to be more precise in needs identification, while still providing leadership and strategies to rationalize the available resources to meet these needs. In the short-term, a number of courses directly operated by the Ministry of Education in the summer months are being transferred to faculties of education while similar programs operated by school boards during the winter months will now be operated by faculties of education instead. This latter will occur wherever a faculty of education is prepared to offer the same favourable circumstances with respect to course location, admission requirements, etc., as were used when such courses were offered by school boards. While such strategies utilize faculties' expertise in given subject areas and administration, it should be pointed out that even the largest faculties in the province still must recruit highly specialized instructional staff from outside their ranks to mount the programs on

a scale approaching that of summer programs operated directly by the Ministry.

New detailed financial analysis relating to the unit costs of such professional development courses for teachers and principals indicate an unsuspected degree of sensitivity to considerations of economy of scale. For this reason, the Ministry will likely pursue a very cautious approach to funding or operating programs for which the demand at a given time or in a given area is very low. The necessity, therefore, to have a reasonably precise picture of the level of needs for a particular course is recognized. Moreover, for courses that will be characterized as low demand programs the Ministry will follow the option of offering such programs every second year rather than annually.

Increasingly the Ministry is looking at professional development growth experiences that will be low cost in operation with relatively high pay-off for the individual teachers or educators involved. The frustration level in professionals already witnessed indicates the necessity of moving to fairly high levels of involvement in such programs at a time when the lack of both horizontal and vertical mobility for such professionals makes its full impact. Exchange programs for teachers, principals and supervisory officers will receive increased attention.

With respect to professional development programming for educators at the administrative levels, the Ministry will continue to support and encourage the Ontario Council for Leadership in Educational Administration (OCLEA) model in which experts in various areas have been prepared to donate their time to operate seminars and workshops of a short term nature on a try out as well as a "customized service" basis. The latter type of seminar has been greeted with strong demand and involves OCLEA using its expertise to identify appropriate resources to meet specific needs. This cooperative OCLEA model has been successful in operating many seminars at a cost approximating one-third of that which would normally be required if all of the instructional staff were paid at the normal rate.

The continued development of expertise on the part of teachers and

other educators in planning and executing professional development activities without leadership from professional teacher educators is a course that will be pursued. Such encouragement and stimulation is largely done through the Regional Professional Development Plan which was administered through the regional offices, involving members of federations, boards and the Ministry.

Major Characteristics of the Current Teaching Force

The major characteristics on which we will report at this time, separately for the most part but with cross-classifications where useful, are as follows:

- | | |
|---------------|-------------------|
| a) age | d) qualifications |
| b) experience | e) position |
| c) sex | f) salary |

These will be for the province as a whole, generally speaking, but some later tables will report summary values by region^{*} and board. For one group, the secondary school teachers, we will report upon mobility of teachers although similar data are not available at this time for the elementary school teachers (the special tabulation of this being made for us by Statistics Canada is not ready for this report).

To provide the background against which the details of the present staff may be studied, it is important to realize how rapidly the teaching force has grown in numbers, and that some sectors have already begun to shrink in size. Table 6.1 gives the historical background of numbers, separately for type of school, for the period 1950-51 to 1976-77. Naturally, the force grew rapidly during the periods when the children from the Baby Boom, and from interprovincial and international migration, flooded our school system. The preliminary effects of declining enrolment on staffing are already evident for elementary schools, but not yet for secondary schools since the latter did not reach peak enrolment until last September.

*The former regions of the Ministry were used here.

TABLE 6.1
GROWTH OF TEACHING FORCE^{*} IN ONTARIO, 1950-1976

| YEAR | ELEMENTARY | | | SECONDARY TOTAL | GRAND TOTAL |
|---------|-----------------|-------------------|--------|--------------------|----------------|
| | Public Total | Separate Total | Total | | |
| 1950-51 | 17,321 | 3,928 | 21,249 | 5,795 | 27,144 |
| 1951-52 | 18,157 | 4,170 | 22,327 | 6,016 | 28,343 |
| 1952-53 | 19,307 | 4,451 | 23,758 | 6,269 | 30,027 |
| 1953-54 | 20,532 | 4,843 | 25,375 | 6,495 | 31,870 |
| 1954-55 | 23,369 | 5,764 | 29,133 | 7,484 | 36,617 |
| 1955-56 | 22,018 | 5,515 | 27,533 | 7,357 | 34,890 |
| 1956-57 | 23,246 | 6,055 | 29,301 | 8,036 | 37,337 |
| 1957-58 | 24,309 | 6,549 | 30,858 | 8,669 | 39,527 |
| 1958-59 | 25,752 | 7,322 | 33,074 | 9,573 | 42,647 |
| 1959-60 | 27,261 | 7,980 | 35,241 | 10,464 | 45,705 |
| 1960-61 | 28,070 | 8,463 | 36,533 | 11,478 | 48,011 |
| 1961-62 | 28,930 | 9,149 | 38,079 | 12,850 | 50,929 |
| 1962-63 | 29,544 | 9,705 | 39,249 | 14,923 | 54,172 |
| 1963-64 | 30,495 | 10,380 | 40,875 | 17,170 | 58,045 |
| 1964-65 | 31,505 | 11,245 | 42,750 | 19,205 | 61,955 |
| 1965-66 | 32,783 | 12,184 | 44,967 | 21,659 | 66,626 |
| 1966-67 | 34,488 | 13,159 | 47,647 | 24,242 | 71,889 |
| 1967-68 | 36,722 | 14,296 | 51,018 | 27,164 | 78,182 |
| 1968-69 | 39,290 | 15,297 | 54,587 | 30,203 | 84,790 |
| 1969-70 | 41,373 | 16,214 | 57,587 | 32,342 | 89,929 |
| 1970-71 | 42,451 | 16,856 | 59,307 | 33,693 | 93,000 |
| 1971-72 | 41,588 | 16,741 | 58,329 | 34,469 | 92,798 |
| 1972-73 | 41,163 | 16,828 | 57,991 | 34,549 | 92,540 |
| 1973-74 | 39,803 | 16,827 | 56,630 | 33,889 | 90,519 |
| 1974-75 | 39,748 | 16,930 | 56,678 | 34,231 | 90,909 |
| 1975-76 | 40,711 | 17,456 | 58,167 | 34,826 | 92,993 |
| 1976-77 | 40,464 | 17,343 | 57,807 | 35,352 | 93,159 |

* Full-time Teachers

Source: Annual Reports of the Minister of Education.

Knowing how rapidly our systems expanded, one would naturally expect to find a relatively young teaching force and one with few years of experience. The distributions of Table 6.2, by age, and Table 6.3, by experience, show the extent to which this is true, and naturally give a clear hint of future problems arising from lack of opportunities for vertical and lateral mobility when the system begins to contract. Also, by giving in the upper ranges the ages and experience by single years, I have drawn attention very specifically to the point to be emphasized later, namely that very few in relative or in absolute terms are nearing the position where early retirement (even with generous incentives) will provide a possible relief in terms of upward mobility, number leaving the profession or reduction in the number of high salaries for the older and more experienced teachers.

As regards qualifications, and of course using the existing system of certification, not that tentatively proposed by the Ministry of Education for future use, I have given in Table 6.4 the qualifications of the public school teachers of 1976-77 cross-classified by experience, and the same for Roman Catholic separate school teachers in Table 6.5, for all elementary school teachers in Table 6.6, and for secondary school teachers, again cross-classified by experience in Table 6.7. Clearly, in all groups, there are found large numbers with high level certification, which means higher salaries according to the salary schedules commonly used. The appropriate salary schedules representing provincial averages are also shown in Tables 6.4 to 6.7. As experience increases the salaries will also automatically increase and within a few years (given little or no mobility into and out of a school system) a board will find itself with not only an aging but a very expensive teaching force. That will be a new experience for nearly all boards outside the larger urban centres, since the period of rapid expansion of the system meant most teachers were inexperienced, with lower level qualifications and consequently lower salaries. Naturally, too, any of the teachers who moved to other systems, or retired, were replaced by young inexperienced teachers at lower salaries. (It was not unusual to find, in terms of total salary paid, an exchange rate of two for one).

To illustrate the existing relationships between experience,

TABLE 6.2

AGE DISTRIBUTION OF ELEMENTARY AND SECONDARY SCHOOL TEACHERS IN ONTARIO
BY AGE AND AGE GROUP AND BY SEX, 1976-77

| AGE | ELEMENTARY SCHOOLS* | | | SECONDARY SCHOOLS | | | ALL SCHOOLS | | |
|------------------|---------------------|--------|--------|-------------------|--------|--------|-------------|--------|--------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 19 and under | 2 | 17 | 19 | 0 | 0 | 0 | 2 | 17 | 19 |
| 20-24 | 612 | 3678 | 4290 | 170 | 314 | 484 | 782 | 3992 | 4774 |
| 25-29 | 5657 | 14,072 | 19,729 | 2524 | 2555 | 5079 | 8181 | 16,627 | 24,808 |
| 30-34 | 4913 | 7090 | 12,003 | 5619 | 2428 | 8047 | 10,532 | 9518 | 20,050 |
| 35-39 | 3147 | 4780 | 7927 | 5120 | 1178 | 6298 | 8267 | 5958 | 14,225 |
| 40-44 | 1524 | 3116 | 4640 | 3609 | 895 | 4504 | 5133 | 4011 | 9144 |
| 45-49 | 913 | 2450 | 3363 | 2666 | 843 | 3509 | 3579 | 3293 | 6872 |
| 50 | 127 | 385 | 512 | 420 | 136 | 556 | 547 | 521 | 1068 |
| 51 | 116 | 363 | 479 | 401 | 128 | 529 | 517 | 491 | 1008 |
| 52 | 98 | 349 | 447 | 404 | 135 | 539 | 502 | 484 | 986 |
| 53 | 86 | 361 | 447 | 343 | 143 | 486 | 429 | 504 | 933 |
| 54 | 67 | 289 | 356 | 347 | 121 | 468 | 414 | 410 | 824 |
| 55 | 55 | 269 | 324 | 310 | 136 | 446 | 365 | 405 | 770 |
| 56 | 59 | 239 | 298 | 249 | 106 | 355 | 308 | 345 | 653 |
| 57 | 47 | 232 | 279 | 227 | 102 | 329 | 274 | 334 | 608 |
| 58 | 31 | 175 | 206 | 189 | 93 | 282 | 220 | 268 | 488 |
| 59 | 21 | 177 | 198 | 144 | 76 | 220 | 165 | 253 | 418 |
| 60 | 24 | 185 | 209 | 138 | 68 | 206 | 162 | 253 | 415 |
| 61 | 30 | 182 | 212 | 103 | 69 | 172 | 133 | 251 | 384 |
| 62 | 17 | 141 | 158 | 108 | 52 | 160 | 125 | 193 | 318 |
| 63 | 14 | 110 | 124 | 68 | 39 | 107 | 82 | 149 | 231 |
| 64 | 3 | 53 | 56 | 42 | 26 | 68 | 45 | 79 | 124 |
| 65 years or over | 5 | 19 | 24 | 19 | 17 | 36 | 24 | 36 | 60 |
| Not reported | 77 | 170 | 247 | 1726 | 1706 | 3432 | 1803 | 1876 | 3679 |
| Total | 17,645 | 38,902 | 56,547 | 24,946 | 11,366 | 36,312 | 42,591 | 50,268 | 92,859 |
| Average age | 33.6 | 33.7 | 33.7 | 39.2 | 36.7 | 38.5 | 36.9 | 34.4 | 35.6 |

*Total Elementary School Teachers, Public and RCSS Schools.

Source: Elementary Teacher Information File, Ministry of Education; Ontario Secondary School Teachers' Federation File.

TABLE 6.3

DISTRIBUTION OF ELEMENTARY AND SECONDARY SCHOOL TEACHERS IN ONTARIO
BY YEARS OF TEACHING EXPERIENCE AND BY SEX, 1976-77

| YEARS OF EXPERIENCE | ELEMENTARY SCHOOLS* | | | SECONDARY SCHOOLS | | | ALL SCHOOLS | | |
|--------------------------------|---------------------|--------|--------|-------------------|--------|--------|-------------|--------|--------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Under 1 | 864 | 1,938 | 2,802 | 1,149 | 1,055 | 2,204 | 2,013 | 2,993 | 5,006 |
| 1-4 | 3,773 | 8,657 | 12,430 | 4,067 | 3,275 | 7,342 | 7,840 | 11,932 | 19,772 |
| 5-9 | 5,112 | 13,550 | 18,662 | 8,206 | 3,996 | 12,202 | 13,318 | 17,546 | 30,864 |
| 10-14 | 3,567 | 6,762 | 10,329 | 6,863 | 1,840 | 8,703 | 10,430 | 8,602 | 19,032 |
| 15-19 | 2,375 | 3,863 | 6,238 | 2,656 | 608 | 3,264 | 5,031 | 4,471 | 9,502 |
| 20-24 | 1,018 | 1,973 | 2,991 | 1,082 | 261 | 1,343 | 2,100 | 2,234 | 4,334 |
| 25-29 | 631 | 1,200 | 1,831 | 545 | 115 | 660 | 1,176 | 1,315 | 2,491 |
| 30 | 82 | 151 | 233 | 78 | 19 | 97 | 160 | 170 | 330 |
| 31 | 39 | 117 | 156 | 43 | 17 | 60 | 82 | 134 | 216 |
| 32 | 33 | 132 | 165 | 36 | 11 | 47 | 69 | 143 | 212 |
| 33 | 24 | 118 | 142 | 30 | 15 | 45 | 54 | 133 | 187 |
| 34 | 27 | 78 | 105 | 16 | 15 | 31 | 43 | 93 | 136 |
| 35 or more years | 56 | 258 | 314 | 61 | 29 | 90 | 117 | 287 | 404 |
| Not reported | 44 | 105 | 149 | 114 | 110 | 224 | 158 | 215 | 373 |
| Total | 17,645 | 38,902 | 56,547 | 24,946 | 11,366 | 36,312 | 42,591 | 50,268 | 92,859 |
| Average years of experience | 9.9 | 9.3 | 9.5 | 9.7 | 7.1 | 8.9 | 9.8 | 8.8 | 9.3 |

*Total Elementary School Teachers, Public and RCSS Schools.

Source: Elementary Teacher Information File, Ministry of Education; Ontario Secondary School Teachers' Federation File.

TABLE 6.4

TEACHER DISTRIBUTION AND AVERAGE SALARY SCHEDULE OF PUBLIC ELEMENTARY SCHOOL TEACHERS
IN ONTARIO BY CERTIFICATE LEVEL AND YEARS OF EXPERIENCE 1976-77

| EXPERIENCE | TEACHER DISTRIBUTION | | | | | | |
|------------|----------------------|-------|-------|-------|--------|-------|-------|
| | Certificate Level | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 37 | 15 | 9 | 415 | 977 | 278 | 255 |
| 1 | 59 | 40 | 31 | 348 | 1,137 | 324 | 312 |
| 2 | 82 | 100 | 86 | 264 | 851 | 209 | 239 |
| 3 | 121 | 213 | 222 | 218 | 789 | 203 | 169 |
| 4 | 267 | 259 | 266 | 270 | 864 | 234 | 179 |
| 5 | 461 | 457 | 345 | 211 | 702 | 217 | 162 |
| 6 | 586 | 717 | 495 | 221 | 765 | 229 | 144 |
| 7 | 374 | 1,068 | 641 | 160 | 840 | 224 | 129 |
| 8 | 283 | 793 | 549 | 150 | 665 | 214 | 119 |
| 9 | 232 | 549 | 859 | 164 | 620 | 235 | 110 |
| 10 | 166 | 388 | 653 | 169 | 725 | 359 | 189 |
| 11 | 126 | 366 | 361 | 73 | 371 | 335 | 222 |
| 12 | 107 | 269 | 319 | 69 | 319 | 194 | 131 |
| 13 | 88 | 230 | 249 | 49 | 275 | 191 | 100 |
| 14 | 79 | 315 | 378 | 82 | 333 | 288 | 141 |
| 15 | 52 | 199 | 227 | 52 | 190 | 183 | 112 |
| 16 | 330 | 1,507 | 1,932 | 408 | 1,073 | 1,024 | 586 |
| Total | 3,449 | 7,483 | 7,624 | 3,323 | 11,493 | 4,939 | 3,298 |

| Allowance | ALLOWANCES TO TEACHERS ON THE REGULAR GRID DISTRIBUTION | | |
|-------------------------|------------------------------------------------------------|---------------------------------|--|
| | Number Receiving Allowance | Average Allowance 1976-77 | |
| On Grid Principals | 660 | 5,085 | |
| On Grid Vice-Principals | 708 | 2,504 | |
| Responsibility | 2,200 | 1,611 | |
| Merit Pay | - | - | |
| Isolation | 77 | 453 | |
| Related Experience | 475 | 462 | |
| Extra Degrees | 1,022 | 582 | |
| Special Education | 1,748 | 601 | |
| Cost of Living | 12,730 | 284 | |
| Other | 773 | 961 | |
| Total | 20,392 | 732 | |

Source: Teachers' Salary Data Base--Ministry of Education.

| EXPERIENCE | CALCULATED AVERAGE SALARY SCHEDULE | | | | | | |
|------------|------------------------------------|--------|--------|--------|--------|--------|--------|
| | Certificate Level | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 8,758 | 9,468 | 10,095 | 11,579 | 12,113 | 13,270 | 13,947 |
| 1 | 9,360 | 10,097 | 10,794 | 12,324 | 12,900 | 14,141 | 14,874 |
| 2 | 10,130 | 10,887 | 11,662 | 13,263 | 13,879 | 15,235 | 16,023 |
| 3 | 10,753 | 11,527 | 12,357 | 14,010 | 14,665 | 16,105 | 16,936 |
| 4 | 11,377 | 12,162 | 13,046 | 14,762 | 15,450 | 16,977 | 17,853 |
| 5 | 12,008 | 12,803 | 13,744 | 15,513 | 16,241 | 17,846 | 18,769 |
| 6 | 12,646 | 13,623 | 14,619 | 16,448 | 17,217 | 18,937 | 19,909 |
| 7 | 12,850 | 14,223 | 15,320 | 17,200 | 18,012 | 19,809 | 20,814 |
| 8 | 12,882 | 15,127 | 16,033 | 17,955 | 18,804 | 20,678 | 21,733 |
| 9 | 12,891 | 15,135 | 16,687 | 18,663 | 19,552 | 21,553 | 22,645 |
| 10 | 12,892 | 15,135 | 17,247 | 19,359 | 20,311 | 22,384 | 23,578 |
| 11 | 12,892 | 15,135 | 17,362 | 19,627 | 20,675 | 22,942 | 24,262 |
| 12 | 12,892 | 15,135 | 17,391 | 19,664 | 20,742 | 23,131 | 24,587 |
| 13 | 12,892 | 15,135 | 17,391 | 19,680 | 20,758 | 23,187 | 24,664 |
| 14 | 12,892 | 15,135 | 17,391 | 19,681 | 20,759 | 23,188 | 24,700 |
| 15 | 12,892 | 15,135 | 17,391 | 19,681 | 20,759 | 23,188 | 24,700 |
| 16 | 12,892 | 15,135 | 17,391 | 19,681 | 20,759 | 23,188 | 24,700 |

| | SALARIES TO TEACHERS NOT ON THE REGULAR GRID DISTRIBUTION | | Average Salary 1976-77 |
|-----------------------------|--------------------------------------------------------------|--------|------------------------------|
| | | Number | |
| Principals | 1,918 | | 29,868 |
| Vice-Principals | 503 | | 26,687 |
| Co-ordinators & Consultants | 105 | | 28,633 |
| Pre-Category Teachers | 3 | | 18,025 |
| Other | 52 | | 24,215 |
| Total | 2,580 | | 29,072 |

TABLE 6.5

TEACHER DISTRIBUTION AND AVERAGE SALARY SCHEDULE OF R.C.
SEPARATE SCHOOL TEACHERS IN ONTARIO BY CERTIFICATE LEVEL AND YEARS OF EXPERIENCE, 1976-77

| EXPERIENCE | TEACHER DISTRIBUTION | | | | | | |
|------------|----------------------|-------|-------|-------|-------|-------|-------|
| | Certificate Level | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 52 | 23 | 20 | 276 | 544 | 145 | 151 |
| 1 | 71 | 42 | 18 | 158 | 475 | 112 | 154 |
| 2 | 72 | 46 | 34 | 144 | 359 | 121 | 174 |
| 3 | 111 | 159 | 155 | 129 | 356 | 103 | 133 |
| 4 | 189 | 190 | 173 | 134 | 289 | 113 | 100 |
| 5 | 265 | 333 | 215 | 98 | 332 | 79 | 98 |
| 6 | 315 | 374 | 281 | 77 | 290 | 93 | 62 |
| 7 | 428 | 412 | 312 | 75 | 333 | 81 | 71 |
| 8 | 107 | 353 | 314 | 66 | 268 | 81 | 89 |
| 9 | 84 | 663 | 222 | 53 | 245 | 82 | 71 |
| 10 | 87 | 144 | 574 | 129 | 425 | 246 | 74 |
| 11 | 102 | 150 | 265 | 55 | 237 | 114 | 213 |
| 12 | 61 | 94 | 85 | 84 | 182 | 60 | 80 |
| 13 | 37 | 89 | 57 | 27 | 122 | 92 | 89 |
| 14 | 45 | 80 | 57 | 17 | 96 | 71 | 56 |
| 15 | 36 | 56 | 70 | 13 | 80 | 51 | 24 |
| 16 | 228 | 488 | 485 | 111 | 489 | 254 | 171 |
| Total | 2,290 | 3,695 | 3,353 | 1,645 | 5,120 | 1,899 | 1,808 |

| EXPERIENCE | CALCULATED AVERAGE SALARY SCHEDULE | | | | | | |
|------------|------------------------------------|--------|--------|--------|--------|--------|--------|
| | Certificate Level | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 8,626 | 9,315 | 10,030 | 11,392 | 11,990 | 13,107 | 13,802 |
| 1 | 9,226 | 9,938 | 10,698 | 12,115 | 12,736 | 13,918 | 14,641 |
| 2 | 9,983 | 10,704 | 11,478 | 12,983 | 13,615 | 14,903 | 15,656 |
| 3 | 10,590 | 11,321 | 12,142 | 13,682 | 14,329 | 15,670 | 16,446 |
| 4 | 11,214 | 11,935 | 12,798 | 14,400 | 15,080 | 16,460 | 17,269 |
| 5 | 11,867 | 12,559 | 13,464 | 15,127 | 15,840 | 17,263 | 18,098 |
| 6 | 12,536 | 13,328 | 14,277 | 15,984 | 16,708 | 18,265 | 19,119 |
| 7 | 12,757 | 13,984 | 14,951 | 16,712 | 17,483 | 19,072 | 19,953 |
| 8 | 12,776 | 14,535 | 15,627 | 17,437 | 18,233 | 19,863 | 20,768 |
| 9 | 12,781 | 14,878 | 16,273 | 18,165 | 18,999 | 20,679 | 21,615 |
| 10 | 12,786 | 14,941 | 16,815 | 18,900 | 19,749 | 21,548 | 22,525 |
| 11 | 12,786 | 14,941 | 19,987 | 19,249 | 20,226 | 22,210 | 23,372 |
| 12 | 12,786 | 14,941 | 17,061 | 19,440 | 20,487 | 22,558 | 23,824 |
| 13 | 12,786 | 14,941 | 17,061 | 19,440 | 20,570 | 22,708 | 23,989 |
| 14 | 12,786 | 14,941 | 17,061 | 19,440 | 20,570 | 22,708 | 24,094 |
| 15 | 12,786 | 14,941 | 17,061 | 19,440 | 20,570 | 22,708 | 24,094 |
| 16 | 12,786 | 14,941 | 17,061 | 19,440 | 20,570 | 22,708 | 24,094 |

| ALLOWANCES TO TEACHERS ON THE REGULAR GRID DISTRIBUTION | | | |
|------------------------------------------------------------|----------------------------------|---------------------------------|--|
| Allowance | Number Receiving Allowance | Average Allowance 1976-77 | |
| On Grid Principals | 722 | 4,349 | |
| On Grid Vice-Principals | 342 | 2,459 | |
| Responsibility | 980 | 1,533 | |
| Merit Pay | 21 | 460 | |
| Isolation | 19 | 520 | |
| Related Experience | 117 | 672 | |
| Extra Degrees | 185 | 575 | |
| Special Education | 985 | 676 | |
| Cost of Living | 5,520 | 122 | |
| Other | 715 | 741 | |
| Total | 9,605 | 786 | |

| SALARIES TO TEACHERS NOT ON THE REGULAR GRID DISTRIBUTION | | |
|--------------------------------------------------------------|--------|------------------------------|
| | Number | Average Salary 1976-77 |
| Principals | 546 | 28,265 |
| Vice-Principals | 3 | 22,900 |
| Co-ordinators & Consultants | 19 | 26,985 |
| Pre-Category Teachers | 19 | 8,563 |
| Other | 5 | 17,810 |
| Total | 593 | 27,474 |

Source: Teachers' Salary Data Base--Ministry of Education.

TABLE 6.6

TEACHER DISTRIBUTION AND AVERAGE SALARY SCHEDULE OF TOTAL
ELEMENTARY SCHOOL TEACHERS IN ONTARIO BY CERTIFICATE LEVEL AND YEARS OF EXPERIENCE, 1976/77

| EXPERIENCE | TEACHER DISTRIBUTION | | | | | | |
|------------|----------------------|--------|--------|-------|--------|-------|-------|
| | Certificate Level | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 88 | 38 | 29 | 692 | 1,521 | 423 | 406 |
| 1 | 130 | 81 | 49 | 505 | 1,612 | 436 | 465 |
| 2 | 155 | 146 | 120 | 408 | 1,210 | 331 | 412 |
| 3 | 233 | 372 | 377 | 347 | 1,144 | 306 | 301 |
| 4 | 456 | 449 | 440 | 404 | 1,152 | 347 | 279 |
| 5 | 726 | 790 | 560 | 309 | 1,034 | 295 | 261 |
| 6 | 901 | 1,091 | 776 | 298 | 1,054 | 322 | 206 |
| 7 | 802 | 1,480 | 953 | 235 | 1,173 | 305 | 200 |
| 8 | 390 | 1,145 | 863 | 215 | 932 | 295 | 208 |
| 9 | 315 | 1,212 | 1,081 | 217 | 865 | 317 | 181 |
| 10 | 253 | 532 | 1,227 | 298 | 1,150 | 605 | 262 |
| 11 | 227 | 516 | 626 | 128 | 607 | 450 | 436 |
| 12 | 168 | 363 | 403 | 154 | 501 | 254 | 211 |
| 13 | 25 | 319 | 306 | 75 | 397 | 283 | 188 |
| 14 | 124 | 395 | 453 | 100 | 429 | 359 | 197 |
| 15 | 88 | 254 | 297 | 65 | 270 | 234 | 126 |
| 16 | 558 | 1,995 | 2,417 | 518 | 1,562 | 1,278 | 757 |
| Total | 5,738 | 11,178 | 10,977 | 4,966 | 16,613 | 6,838 | 5,106 |

| EXPERIENCE | CALCULATED AVERAGE SALARY SCHEDULE | | | | | | |
|------------|------------------------------------|--------|--------|--------|--------|--------|--------|
| | Certificate Level | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 8,716 | 9,419 | 10,074 | 11,519 | 12,074 | 13,218 | 13,901 |
| 1 | 9,317 | 10,046 | 10,764 | 12,258 | 12,848 | 14,070 | 14,800 |
| 2 | 10,083 | 10,828 | 11,603 | 13,174 | 13,795 | 15,129 | 15,906 |
| 3 | 10,701 | 11,461 | 12,288 | 13,905 | 14,558 | 15,967 | 16,780 |
| 4 | 11,325 | 12,089 | 12,967 | 14,647 | 15,332 | 16,813 | 17,667 |
| 5 | 11,963 | 12,725 | 13,655 | 15,390 | 16,113 | 17,660 | 18,556 |
| 6 | 12,611 | 13,529 | 14,510 | 16,300 | 17,055 | 18,723 | 19,657 |
| 7 | 12,820 | 14,147 | 15,203 | 17,045 | 17,843 | 19,575 | 20,540 |
| 8 | 12,848 | 14,699 | 15,904 | 17,790 | 18,622 | 20,419 | 21,426 |
| 9 | 12,856 | 15,048 | 16,555 | 18,505 | 19,376 | 21,275 | 22,318 |
| 10 | 12,858 | 15,073 | 17,109 | 19,213 | 20,132 | 22,118 | 23,240 |
| 11 | 12,858 | 15,073 | 17,243 | 19,507 | 20,532 | 22,710 | 23,979 |
| 12 | 12,858 | 15,073 | 17,286 | 19,593 | 20,661 | 22,949 | 24,345 |
| 13 | 12,858 | 15,073 | 17,286 | 19,604 | 20,699 | 23,035 | 24,449 |
| 14 | 12,858 | 15,073 | 17,286 | 19,604 | 20,699 | 23,057 | 24,507 |
| 15 | 12,858 | 15,073 | 17,286 | 19,604 | 20,699 | 23,057 | 24,507 |
| 16 | 12,858 | 15,073 | 17,286 | 19,604 | 20,699 | 23,057 | 24,507 |

| Allowance | ALLOWANCES TO TEACHERS ON THE REGULAR GRID DISTRIBUTION | | |
|-------------------------|------------------------------------------------------------|---------------------------|--|
| | Number Receiving Allowance | | |
| | Number Receiving Allowance | Average Allowance 1976-77 | |
| On Grid Principals | 1,382 | 4,700 | |
| On Grid Vice-Principals | 1,050 | 2,489 | |
| Responsibility | 3,180 | 1,587 | |
| Merit Pay | 21 | 460 | |
| Isolation | 96 | 466 | |
| Related Experience | 592 | 504 | |
| Extra Degrees | 1,207 | 581 | |
| Special Education | 2,733 | 628 | |
| Cost of Living | 18,250 | 235 | |
| Other | 1,488 | 856 | |
| Total | 29,998 | 750 | |

| SALARIES TO TEACHERS NOT ON THE REGULAR GRID DISTRIBUTION | Number | | Average Salary 1976-77 |
|--------------------------------------------------------------|--------|--|------------------------|
| | Number | | |
| | Number | | |
| Principals | 2,465 | | 29,513 |
| Vice-Principals | 506 | | 26,665 |
| Co-ordinators & Consultants | 124 | | 28,380 |
| Pre-Category Teachers | 22 | | 9,854 |
| Other | 57 | | 23,629 |
| Total | 3,173 | | 28,773 |

Source: Teachers' Salary Data Base--Ministry of Education.

TABLE 6.7

TEACHER DISTRIBUTION AND AVERAGE SALARY SCHEDULE OF
SECONDARY SCHOOL TEACHERS IN ONTARIO BY CERTIFICATE LEVEL AND YEARS OF EXPERIENCE, 1976/77

| EXPERIENCE | TEACHER DISTRIBUTION | | | | |
|------------|----------------------|-------|-------|--------|--|
| | Certificate Level | | | | |
| | 1 | 2 | 3 | 4 | |
| 0 | 199 | 291 | 136 | 740 | |
| 1 | 198 | 308 | 161 | 837 | |
| 2 | 157 | 316 | 164 | 902 | |
| 3 | 123 | 252 | 151 | 862 | |
| 4 | 154 | 315 | 187 | 996 | |
| 5 | 204 | 413 | 245 | 1,037 | |
| 6 | 203 | 463 | 293 | 1,040 | |
| 7 | 242 | 471 | 322 | 870 | |
| 8 | 232 | 501 | 354 | 1,306 | |
| 9 | 214 | 448 | 373 | 1,202 | |
| 10 | 327 | 492 | 345 | 1,098 | |
| 11 | 231 | 461 | 645 | 1,745 | |
| 12 | 138 | 233 | 236 | 1,317 | |
| 13 | 127 | 207 | 258 | 809 | |
| 14 | 155 | 276 | 307 | 1,040 | |
| 15 | 89 | 126 | 194 | 609 | |
| 16 | 404 | 650 | 1,149 | 3,541 | |
| Total | 3,499 | 6,231 | 5,521 | 19,950 | |

| EXPERIENCE | CALCULATED AVERAGE SALARY SCHEDULE | | | | |
|------------|------------------------------------|--------|--------|--------|--|
| | Certificate Level | | | | |
| | 1 | 2 | 3 | 4 | |
| 0 | 11,664 | 12,181 | 13,321 | 13,992 | |
| 1 | 12,409 | 12,964 | 14,202 | 14,923 | |
| 2 | 13,339 | 13,944 | 15,304 | 16,083 | |
| 3 | 14,088 | 14,734 | 16,184 | 17,006 | |
| 4 | 14,840 | 15,535 | 17,076 | 17,965 | |
| 5 | 15,586 | 16,321 | 17,956 | 18,898 | |
| 6 | 16,508 | 17,289 | 19,052 | 20,052 | |
| 7 | 17,251 | 18,076 | 19,930 | 20,968 | |
| 8 | 17,998 | 18,960 | 20,811 | 21,902 | |
| 9 | 18,751 | 19,653 | 21,692 | 22,832 | |
| 10 | 19,441 | 20,432 | 22,564 | 23,770 | |
| 11 | 19,750 | 20,826 | 23,166 | 24,508 | |
| 12 | 19,786 | 20,879 | 23,290 | 24,776 | |
| 13 | 19,797 | 20,879 | 23,345 | 24,843 | |
| 14 | 19,797 | 20,879 | 23,345 | 24,853 | |
| 15 | 19,797 | 20,879 | 23,345 | 24,853 | |
| 16 | 19,797 | 20,879 | 23,345 | 24,853 | |

| Allowance | ALLOWANCES TO TEACHERS ON THE REGULAR GRID DISTRIBUTION | | |
|-------------------------|------------------------------------------------------------|---------------------------|--|
| | Number | | |
| | Receiving Allowance | Average Allowance 1976-77 | |
| On Grid Principals | 25 | 10,070 | |
| On Grid Vice-Principals | 44 | 5,530 | |
| Responsibility | 10,656 | 1,771 | |
| Merit Pay | - | - | |
| Isolation | 21 | 100 | |
| Related Experience | 3,666 | 1,121 | |
| Extra Degrees | 3,964 | 614 | |
| Special Education | 614 | 596 | |
| Cost of Living | 13,593 | 448 | |
| Other | 430 | 498 | |
| Total | 33,012 | 987 | |

| SALARIES TO TEACHERS NOT ON THE REGULAR GRID DISTRIBUTION | | |
|--------------------------------------------------------------|--------|------------------------------|
| | Number | Average Salary 1976-77 |
| Principals | 567 | 34,077 |
| Vice-Principals | 759 | 29,727 |
| Teachers of the TMR | 841 | 15,915 |
| Co-ordinators & Consultants | 129 | 30,034 |
| Pre-category Teachers | 11 | 12,574 |
| Other | 29 | 27,552 |
| Total | 2,335 | 25,718 |

Source: Teachers' Salary Data Base--Ministry of Education.

qualifications and salary schedule classifications, I selected at random the position shown in Table 6.8 for the Lakehead Secondary School Board and in Table 6.9 the position for the Essex R.C.S.S. Board. There is not a common salary schedule applicable to all boards in the province but there certainly is a common format for practically all of them and values in the salary grids are so similar that they are converging towards a provincial salary schedule in fact, if not in theory or intention. All boards are affected in the same way in one major respect: teachers automatically age by one year each year and most of them almost as automatically strive to increase their qualifications. In short, all have a common goal, the lower right-hand corner of the salary schedule or grid.

Before moving to any consideration of variations among boards, I wish to introduce one more feature for the province as a whole, what we generally refer to as mobility of the teachers each year, referred to earlier. The situation for secondary school teachers is depicted in Table 6.10, showing the movements each year from September, 1966, to September, 1976. It has been known for some time that mobility within the provincial system is almost static with very little room for new entrees even within the secondary school system. Even though secondary school enrolment had just reached its high level last year, mobility is already disappearing without contraction. The process will be speeded up tremendously once enrolment declines become pronounced, which is why we were so eager to secure up-to-date information from Statistics Canada about the elementary school situation. Our studies of the surplus/redundancy clauses in collective agreements make it clear that seniority in the schools of the same board will be the primary if not the sole criterion for any "dehiring" actions, if I may be excused for using such an ugly, manufactured word (we certainly have become expert at avoidance of a direct and meaningful phrase). As a matter of fact, in light of those earlier tables of age and experience, it becomes clear that, like it or lump it, our system is going to solidify into an inflexible grid with no movement for many years. Retirement will have little effect on the number of teaching positions made available before the end of the

TABLE 6.8

DISTRIBUTION AND SALARY SCHEDULE OF LAKEHEAD SECONDARY SCHOOL TEACHERS
BY CERTIFICATE LEVEL AND YEARS OF EXPERIENCE, 1976-77

| TEACHER DISTRIBUTION (JANUARY 1977) | | | | | SALARY SCHEDULE | | | | |
|-------------------------------------|----------|-------|------|-------|-----------------|----------|--------|--------|--------|
| Experience | Category | | | | Experience | Category | | | |
| | 1 | 2 | 3 | 4 | | 1 | 2 | 3 | 4 |
| 0 | 2.5 | 5.0 | 0.0 | 9.0 | 0 | 12,155 | 12,819 | 13,849 | 14,450 |
| 1 | 2.0 | 3.0 | 5.0 | 12.0 | 1 | 12,916 | 13,629 | 14,732 | 15,454 |
| 2 | 5.7 | 6.3 | 3.0 | 6.0 | 2 | 13,677 | 14,439 | 15,615 | 15,458 |
| 3 | 5.0 | 6.0 | 1.8 | 10.3 | 3 | 14,438 | 15,249 | 16,498 | 17,462 |
| 4 | 3.0 | 6.0 | 4.0 | 11.0 | 4 | 15,199 | 16,059 | 17,371 | 18,466 |
| 5 | 1.0 | 9.0 | 4.5 | 7.0 | 5 | 15,960 | 16,869 | 18,264 | 19,470 |
| 6 | 2.0 | 7.7 | 4.0 | 22.7 | 6 | 16,721 | 17,679 | 19,147 | 20,474 |
| 7 | 3.5 | 9.5 | 3.0 | 24.8 | 7 | 17,482 | 18,489 | 20,030 | 21,478 |
| 8 | 2.5 | 12.5 | 4.0 | 35.1 | 8 | 18,243 | 19,299 | 20,913 | 22,482 |
| 9 | 4.0 | 6.0 | 8.0 | 20.0 | 9 | 19,004 | 20,109 | 21,796 | 23,486 |
| 10 | 4.0 | 6.9 | 7.0 | 16.0 | 10 | 19,765 | 20,919 | 22,679 | 24,490 |
| 11 | 3.0 | 8.5 | 7.0 | 15.0 | 11 | 19,765 | 20,919 | 23,562 | 25,494 |
| 12 | 1.0 | 4.7 | 3.0 | 16.0 | 12 | 19,765 | 20,919 | 23,562 | 25,494 |
| 13 | 2.0 | 2.0 | 9.0 | 23.2 | 13 | 19,765 | 20,919 | 23,562 | 25,494 |
| 14 | 0.0 | 4.0 | 2.0 | 15.5 | 14 | 19,765 | 20,919 | 23,562 | 25,494 |
| 15 | 1.0 | 2.0 | 5.0 | 16.0 | 15 | 19,765 | 20,919 | 23,562 | 25,494 |
| 16 | 6.0 | 8.8 | 16.0 | 56.3 | 16 | 19,765 | 20,919 | 23,562 | 25,494 |
| Total | 48.2 | 107.9 | 86.3 | 315.9 | | | | | |

Source: Teachers' Salary Data Base--Ministry of Education.

TABLE 6.9
TEACHER DISTRIBUTION AND SALARY SCHEDULE, ESSEX COUNTY ROMAN CATHOLIC SEPARATE
SCHOOL BOARD, BY YEARS OF EXPERIENCE, 1976-77

| EXPERIENCE | TEACHER DISTRIBUTION | | | | | | | SALARY SCHEDULES | | | | | | |
|------------|----------------------|------|------|------|-------|------|------|------------------|--------|--------|--------|--------|--------|--------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 1.0 | 4.0 | 0.0 | 13.0 | 14.0 | 2.0 | 9.0 | 8,849 | 9,572 | 10,462 | 11,686 | 12,466 | 13,690 | 14,580 |
| 1 | 4.5 | 1.0 | 0.0 | 2.0 | 11.0 | 3.0 | 2.0 | 9,517 | 10,240 | 11,130 | 12,410 | 13,190 | 14,469 | 15,359 |
| 2 | 1.0 | 3.0 | 2.0 | 3.0 | 14.0 | 7.0 | 6.0 | 10,184 | 10,907 | 11,798 | 13,133 | 13,912 | 15,248 | 16,138 |
| 3 | 3.0 | 0.0 | 5.0 | 5.0 | 11.0 | 3.0 | 7.0 | 10,852 | 11,575 | 12,466 | 13,857 | 14,636 | 16,027 | 16,918 |
| 4 | 4.0 | 4.0 | 6.0 | 1.0 | 11.0 | 5.0 | 4.0 | 11,520 | 12,243 | 13,133 | 14,580 | 15,539 | 16,806 | 17,697 |
| 5 | 2.5 | 9.0 | 4.0 | 1.0 | 3.0 | 3.0 | 5.0 | 12,188 | 12,911 | 13,801 | 15,304 | 16,083 | 17,585 | 18,476 |
| 6 | 5.5 | 7.0 | 7.0 | 3.0 | 11.0 | 3.0 | 2.0 | 12,856 | 13,579 | 14,469 | 16,027 | 16,806 | 18,364 | 19,255 |
| 7 | 4.0 | 5.0 | 8.0 | 0.0 | 9.0 | 4.0 | 2.0 | 12,856 | 14,246 | 15,137 | 16,751 | 17,474 | 19,144 | 20,034 |
| 8 | 3.0 | 3.0 | 2.0 | 0.0 | 5.5 | 3.0 | 6.0 | 12,856 | 14,914 | 15,805 | 17,474 | 18,253 | 19,923 | 20,813 |
| 9 | 2.0 | 3.0 | 5.0 | 0.0 | 5.0 | 1.0 | 4.0 | 12,856 | 15,582 | 16,472 | 18,198 | 18,977 | 20,702 | 21,592 |
| 10 | 0.0 | 3.0 | 4.0 | 1.0 | 3.0 | 1.0 | 1.0 | 12,856 | 16,250 | 17,140 | 18,921 | 19,700 | 22,260 | 23,150 |
| 11 | 3.0 | 1.0 | 3.5 | 0.0 | 4.0 | 1.0 | 1.0 | 12,856 | 16,250 | 17,140 | 18,921 | 19,700 | 22,260 | 23,150 |
| 12 | 2.0 | 4.0 | 4.0 | 1.0 | 8.0 | 0.0 | 3.0 | 12,856 | 16,250 | 17,140 | 18,921 | 19,700 | 23,039 | 23,929 |
| 13 | 4.8 | 1.0 | 1.0 | 4.0 | 8.0 | 4.0 | 5.0 | 12,856 | 16,250 | 17,140 | 18,921 | 19,700 | 23,039 | 23,929 |
| 14 | 2.0 | 4.0 | 1.0 | 2.0 | 0.0 | 4.0 | 3.0 | 12,856 | 16,250 | 17,140 | 18,921 | 19,700 | 23,039 | 23,929 |
| 15 | 0.0 | 1.0 | 2.0 | 1.0 | 4.0 | 1.0 | 1.0 | 12,856 | 16,250 | 17,140 | 18,921 | 19,700 | 23,039 | 23,929 |
| 16 | 10.0 | 11.5 | 11.0 | 7.0 | 15.2 | 7.0 | 13.0 | 12,856 | 16,250 | 17,140 | 18,921 | 19,700 | 23,039 | 23,929 |
| Total | 52.3 | 64.5 | 65.6 | 44.0 | 136.7 | 52.0 | 74.0 | | | | | | | |

Source: Teachers' Salary Data Base--Ministry of Education.

TABLE 6.10
MOBILITY OF SECONDARY SCHOOL TEACHERS IN ONTARIO 1966 TO 1976

| YEAR | STOCK ¹ | LEAVERS ² | | MOVED WITHIN ONTARIO | | NEW ENTRIES ³ | | RE-ENTRIES ³ | | NEW STOCK ONE YEAR LATER ⁴ | |
|------|--------------------|----------------------|------|----------------------|-----|--------------------------|------|-------------------------|-----|------------------------------------------|-------|
| | | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1966 | 25,217 | 3,647 | 14.4 | 2,038 | 8.0 | 5,162 | 20.4 | 1,472 | 5.8 | 28,204 | 111.8 |
| 1967 | 28,204 | 4,126 | 14.6 | 1,691 | 5.9 | 4,908 | 17.4 | 1,721 | 6.1 | 30,707 | 108.8 |
| 1968 | 30,707 | 4,349 | 14.1 | 2,373 | 7.7 | 4,725 | 15.3 | 2,015 | 6.5 | 33,098 | 107.7 |
| 1969 | 33,098 | 4,287 | 12.9 | 1,395 | 4.2 | 3,628 | 10.9 | 1,508 | 4.5 | 33,947 | 102.5 |
| 1970 | 33,947 | 4,569 | 13.4 | 1,101 | 3.2 | 2,986 | 8.7 | 2,336 | 6.8 | 34,700 | 102.2 |
| 1971 | 34,700 | 3,585 | 10.3 | 646 | 1.8 | 2,223 | 6.4 | 1,093 | 3.1 | 34,431 | 99.2 |
| 1972 | 34,431 | 3,298 | 9.5 | 597 | 1.7 | 1,687 | 4.8 | 1,419 | 4.1 | 34,239 | 99.2 |
| 1973 | 3,4239 | 2,935 | 8.5 | 831 | 2.4 | 2,094 | 6.1 | 1,109 | 3.2 | 34,507 | 100.7 |
| 1974 | 34,507 | 2,677 | 7.7 | 807 | 2.3 | 2,284 | 6.6 | 1,490 | 4.3 | 35,604 | 103.1 |
| 1975 | 35,604 | 2,727 | 7.6 | 563 | 1.5 | 2,148 | 6.0 | 1,280 | 3.5 | 36,305 | 101.9 |
| 1976 | 36,305 | | | | | | | | | | |

¹September.

²By the following June; includes deaths, retirements, and voluntary withdrawals from the teaching force.

³September following year.

⁴Stock in previous September equals 100%.

Source: Annual Computer files maintained by the OSSTF.

century, and then "lumps" will all leave at the same time, as charts 6.1 to 6.4 indicate. One young and newly-appointed secondary school principal said to me, with a weary sigh: "I just know that for the next 20 years I'm going to be principal of this school, with little or no changes in staff, and like the building we'll all grow older and greyer together". It is perhaps fortunate for him and his staff that the students, too, weren't immobilized into Rip Van Winkles--they, at least, will change, and undoubtedly will appear ever younger as the years roll along, assuming there are enough students left to preserve both the school from closing and the staff from, er, "dispersal?".

By the way, most of the data on teachers salaries, past, present and future, will be found later in this chapter or in the Statistical Appendix. As nearly everyone knows, salary allocation is the major segment of a board's budget, accounting for about 70% of the total amount even today, and much more tomorrow. Clearly, therefore, this aspect of the impact of declining enrolments must be discussed as part of the task of sorting out the pieces of the jigsaw puzzle of education financing.

The increasing salary bill could place an extremely heavy burden on the local ratepayers. Even if the province increases the amount of its contributions, it could still carry a decreasing proportion of the total education bill. It is well known that for institutions without direct access to tax revenue high costs can prove too heavy a burden to impose and can lead to bankruptcy and even ruin in the worst cases.

More detailed analyses of teacher characteristics, with commentary, will be found in the Statistical Appendix referred to earlier and in the special reports commissioned for us. At this juncture, however, I wish to report some of these basic data, in the form of averages for 1976-77 for each region and board, so that an understanding of the degree of variation, as well as agreement, across the province may be gained.

In looking at the situation in the province by region and board, I'll begin with a series of summaries of averages for the school year 1976-77, and later pick up the historical trends, from 1970 to 1976

CHART 6.1

TOTAL NUMBER OF ELEMENTARY SCHOOL TEACHERS ELIGIBLE FOR RETIREMENT, 1976 TO 2010

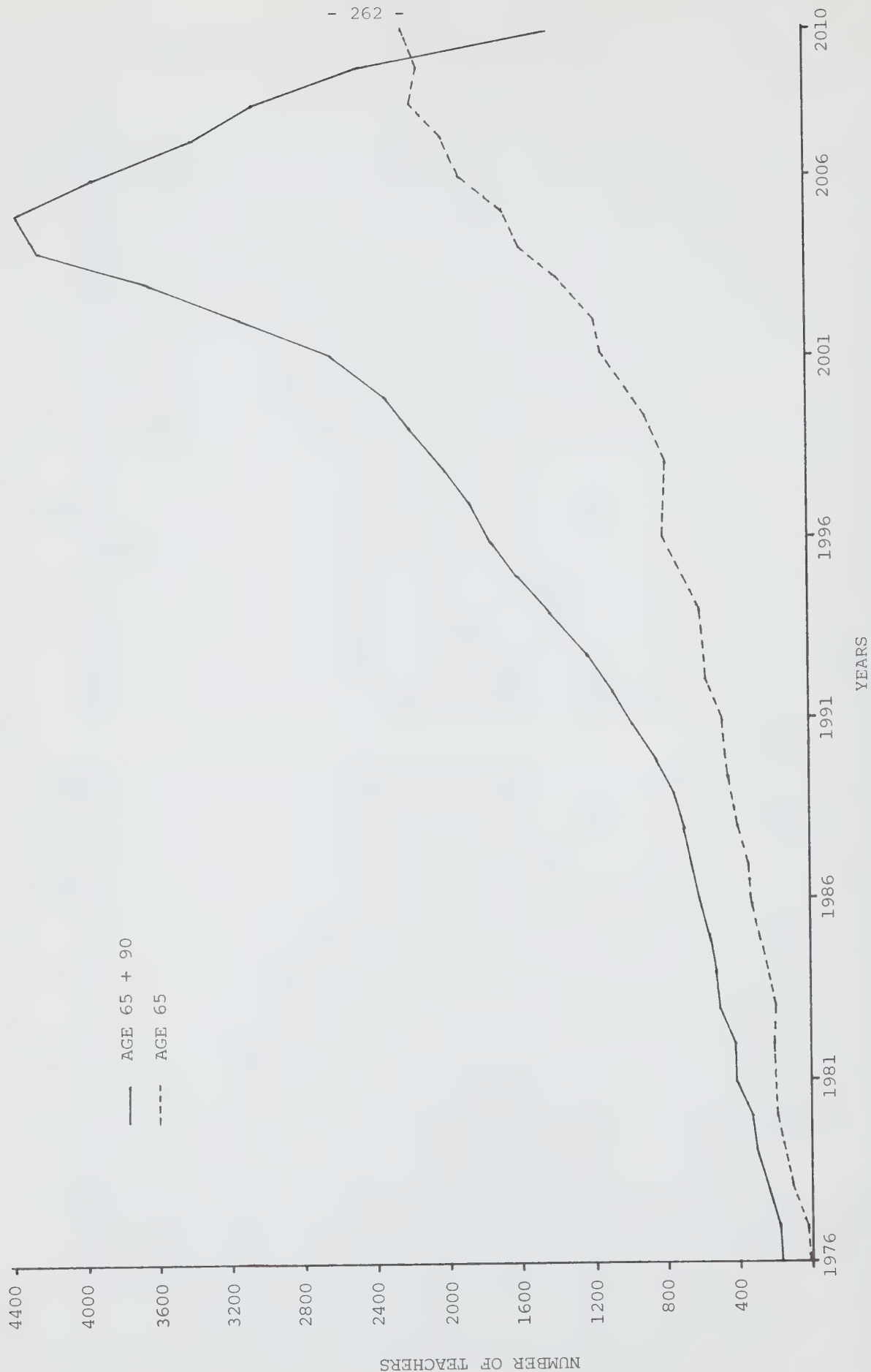


CHART 6.2

TOTAL NUMBER OF SECONDARY SCHOOL TEACHERS ELIGIBLE FOR RETIREMENT, 1976 TO 2010

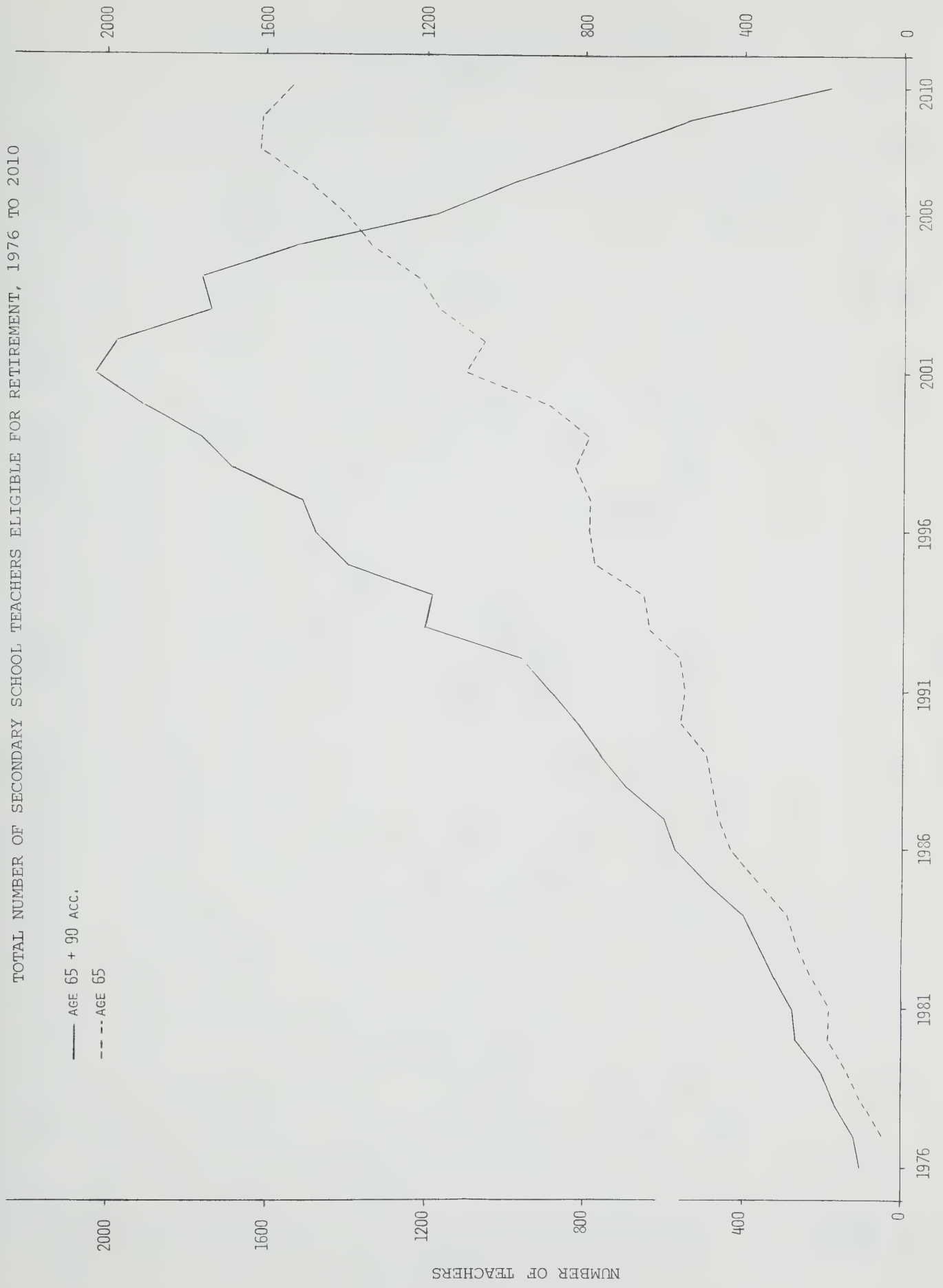


CHART 6.3
AGE DISTRIBUTION OF ONTARIO ELEMENTARY TEACHERS BY SEX
ON DECEMBER 31, 1976

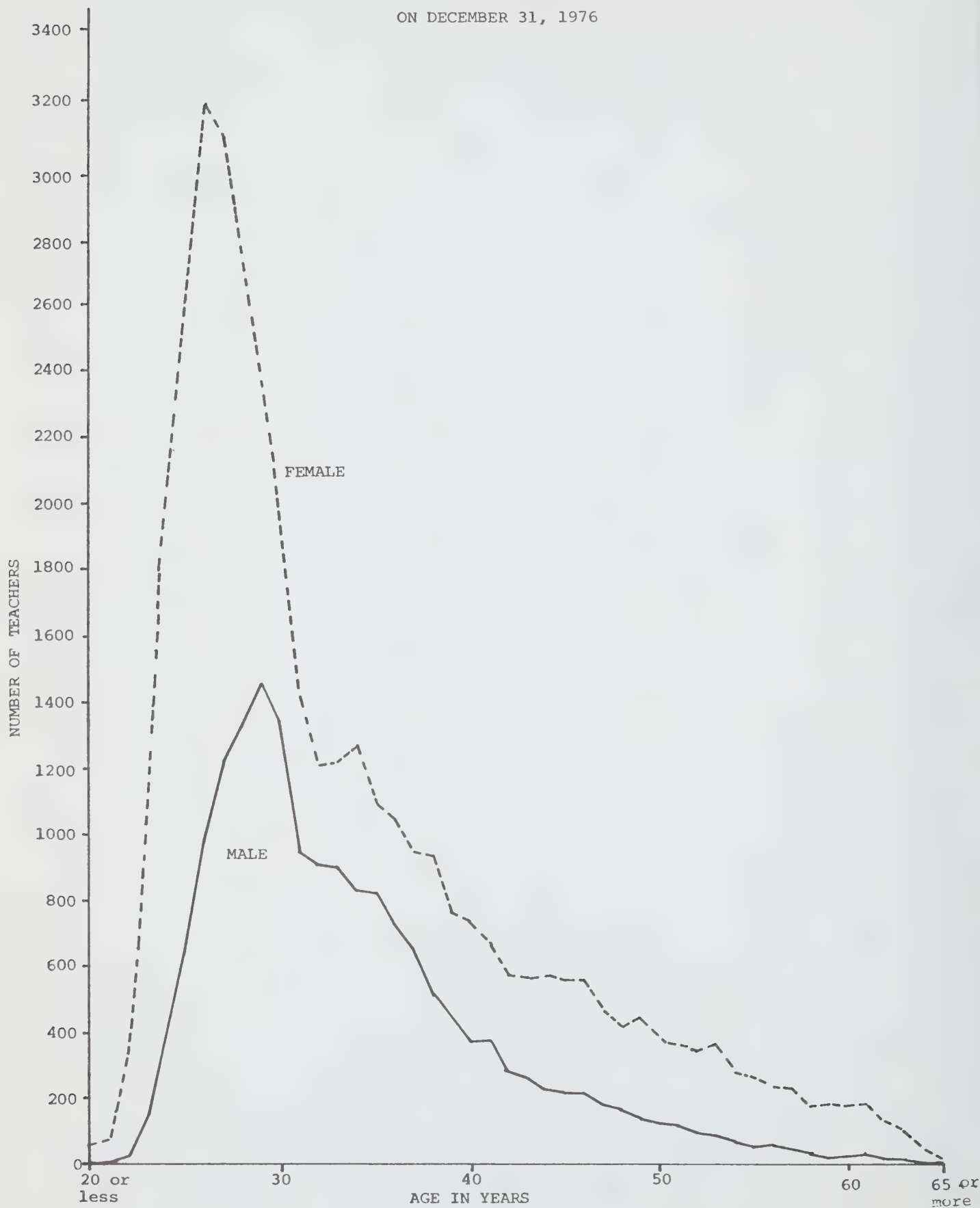
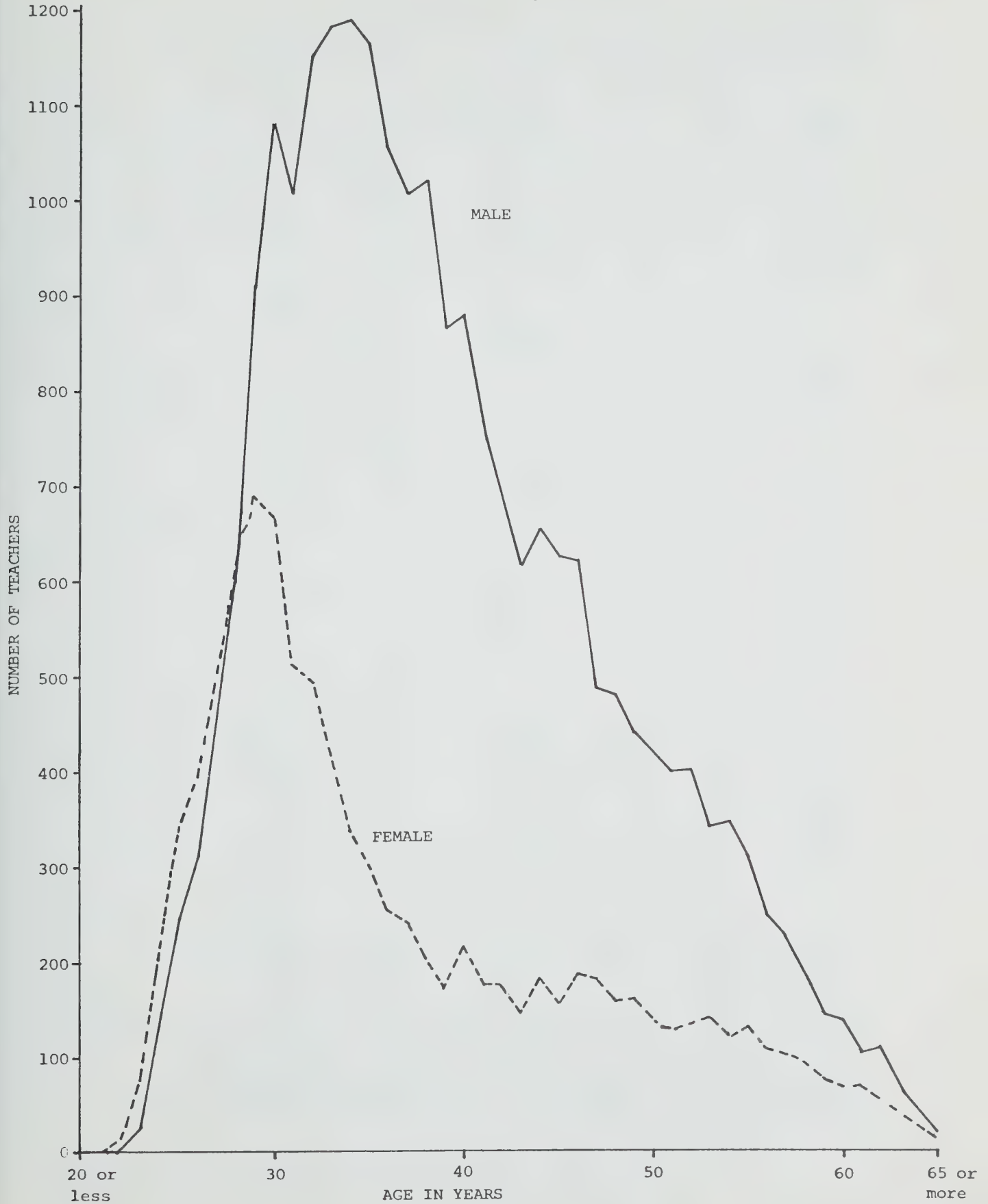


CHART 6.4
AGE DISTRIBUTION OF ONTARIO SECONDARY TEACHERS BY SEX
ON DECEMBER 31, 1976



for the elementary boards, and from 1966 to 1976 for the secondary.¹ The basic data by board and region on average salaries for elementary school teachers are given in Tables 6.11 and 6.12. Note that the average salaries vary quite widely within each region, but naturally not as greatly as for the province as a whole (from a low of \$12,647 in one board to a high of \$19,297 in another).² Although the salaries reported in Tables 6.13 and 6.14 for secondary schools are higher, much the same variation exists (e.g., for the province as a whole) from an average \$17,621 at the lowest to a high of \$24,291.

For the other characteristics, only condensed summaries by regions will be given at this stage, although more details will be found in the Statistical Appendix. The overall summary for 1976 has been condensed into two tables, Tables 6.19 and 6.20, for average age, experience and qualifications, for elementary schools and secondary schools respectively. The values, of course, vary widely from board to board within each region, but these detailed analyses have been reserved for the Statistical Appendix. The regions are remarkably similar, in fact, in terms of these averages, somewhat to my surprise although I should have realized that such would likely be the case when the whole provincial system sort of grew as a unit.

For a glimpse of the recent changes in these characteristics, from 1966 to 1976 for secondary, and 1970 to 1976 for elementary, I have set up Tables 6.21 and 6.22 in a similar way to reveal the actual changes. The salary changes are so great during this period, however, that I have shown them separately in Table 6.23 for the same periods, using percentage change. A special study of salary changes was commissioned, and will be issued separately, but the main findings are referred to in the final

¹ I wish to express my appreciation for the analyses we were able to make using the Master File maintained by the Ontario Secondary School Teachers' Federation.

² Additional information on average salaries of elementary and secondary school teachers by region for the years 1970 to 1976 for elementary and 1966 to 1976 for secondary is given in Tables 6.15 and 6.16. The corresponding distributions of responsibility by age and sex for the year 1976-77 are given in Tables 6.17 and 6.18.

TABLE 6.11

AVERAGE TOTAL SALARY AND AVERAGE GRID SALARY OF ELEMENTARY SCHOOL TEACHERS
IN ONTARIO BY REGION AND BOARD, 1976-77

| | Average Grid Salaries | Average Total Salaries | | Average Grid Salaries | Average Total Salaries |
|-------------------------|--------------------------|---------------------------|--------------------------------|--------------------------|---------------------------|
| <u>REGION 1</u> | | | <u>REGION 5</u> | | |
| Lakehead | 17,306 | 18,468 | Waterloo | 16,157 | 17,735 |
| Kenora | 17,811 | 18,329 | Grey | 15,998 | 17,097 |
| Atikokan | 16,699 | 17,664 | Wellington | 16,211 | 16,774 |
| Geraldton | 17,072 | 17,419 | Brant | 16,608 | 16,563 |
| Dryden RCSS | 16,735 | 16,983 | Waterloo RCSS | 17,000 | 16,460 |
| Nipigon-Red Rock | 16,137 | 16,951 | Wellington RCSS | 16,825 | 16,448 |
| Dryden | 16,563 | 16,950 | Bruce | 17,000 | 16,433 |
| Kenora RCSS | 16,106 | 16,687 | Perth | 15,953 | 16,331 |
| Ft. Francis-Rainy River | 16,175 | 16,651 | Oxford | 15,904 | 16,316 |
| RCSS | | | Huron-Perth RCSS | 16,044 | 15,741 |
| Lakehead RCSS | 15,684 | 16,495 | Brant RCSS | 16,000 | 15,343 |
| Lake Superior | 15,270 | 16,367 | Oxford RCSS | 14,070 | 15,269 |
| Ft. Francis-Rainy River | 15,790 | 16,317 | Bruce-Grey RCSS | 14,503 | 15,211 |
| Atikokan No. 1 RCSS | 15,454 | 15,884 | | | |
| Red Lake | 15,107 | 15,419 | <u>REGION 6</u> | | |
| North of Superior RC | 14,934 | 15,359 | Lincoln | 18,175 | 19,233 |
| Geraldton RCSS | 14,573 | 14,864 | Hamilton | 16,286 | 17,271 |
| | | | Lincoln RCSS | 16,634 | 17,186 |
| <u>REGION 2</u> | | | Hamilton-Wentworth RCSS | 16,031 | 16,987 |
| North Shore | 16,926 | 18,153 | Niagara South | 16,384 | 16,001 |
| Sudbury | 16,926 | 18,034 | Norfolk | 16,771 | 16,875 |
| Central Algoma | 16,948 | 17,452 | Wentworth | 15,781 | 16,854 |
| Sault Ste. Marie | 16,543 | 17,184 | Welland RCSS | 16,162 | 16,586 |
| Sault Ste. Marie RCSS | 16,017 | 16,622 | Haldimand | 15,050 | 15,612 |
| Sudbury RCSS | 15,873 | 16,477 | Haldimand-Norfolk RCSS | 14,143 | 15,222 |
| Hornepayne | 15,814 | 16,456 | | | |
| Chapleau | 15,494 | 16,045 | <u>REGION 7</u> | | |
| North Shore RCSS | 15,322 | 15,887 | Etobicoke | 17,403 | 18,001 |
| Manitoulin | 15,152 | 15,665 | North York | 17,041 | 18,000 |
| Michipicoten | 14,841 | 15,401 | Toronto | 17,524 | 18,000 |
| Espanola | 14,435 | 15,230 | East York | 17,000 | 18,000 |
| Michipicoten RCSS | 14,226 | 14,765 | York | 16,030 | 18,443 |
| Chapleau Panet RCSS | 12,625 | 12,647 | Scarborough | 16,000 | 18,334 |
| | | | Peel | 17,161 | 18,152 |
| <u>REGION 3</u> | | | Halton | 16,701 | 17,665 |
| Kapuskasing | 17,469 | 17,921 | Simcoe | 16,481 | 17,801 |
| Nipissing | 17,061 | 17,715 | York County | 16,330 | 17,345 |
| Kirkland Lake | 16,514 | 17,475 | Metro Toronto RCSS | 16,509 | 17,000 |
| West Parry Sound | 16,116 | 17,032 | Durham | 16,264 | 17,100 |
| Muskoka | 16,459 | 17,013 | Dufferin-Peel RCSS | 15,896 | 16,000 |
| Kapuskasing RCSS | 16,462 | 16,939 | Haliburton | 15,318 | 16,000 |
| Nipissing RCSS | 16,197 | 16,691 | York County RCSS | 14,901 | 15,000 |
| Timmins | 15,749 | 16,632 | Victoria | 14,721 | 15,000 |
| Cochrane-Iroquois Falls | 15,530 | 16,379 | | | |
| East Parry Sound | 15,427 | 16,327 | <u>REGION 9</u> | | |
| Timiskaming | 15,854 | 16,292 | Peterborough | 16,444 | 16,852 |
| Hearst | 15,495 | 15,946 | Frontenac-Lennox & Addington | 16,392 | 16,644 |
| Kirkland Lake RCSS | 15,247 | 15,635 | RCSS | | |
| Hearst RCSS | 14,746 | 15,141 | Hastings | 15,707 | 16,707 |
| Timmins RCSS | 14,493 | 15,066 | Northumberland & New Castle | 16,232 | 16,747 |
| Cochrane-Iroquois FALLS | 14,575 | 14,684 | Leeds & Grenville | 15,015 | 16,524 |
| RCSS | | | Frontenac | 14,964 | 16,160 |
| Timiskaming RCSS | 13,977 | 14,322 | Lennox & Addington | 15,674 | 16,141 |
| | | | Peterborough, ETC RCSS | 15,537 | 15,926 |
| <u>REGION 4</u> | | | Prince Edward | 15,090 | 15,891 |
| Windsor RCSS | 17,327 | 18,700 | Hastings-Prince Edward RCSS | 15,210 | 15,613 |
| London | 16,966 | 17,800 | Lincoln-Leeds & Grenville RCSS | 14,626 | 14,365 |
| Essex | 16,441 | 17,478 | | | |
| Huron | 16,145 | 17,203 | <u>REGION 10</u> | | |
| Essex RCSS | 16,272 | 17,100 | Ottawa | 18,069 | 18,940 |
| Middlesex | 16,151 | 16,751 | Carleton | 17,729 | 18,617 |
| Kent | 15,849 | 16,659 | Renfrew | 16,925 | 17,411 |
| Elgin | 15,709 | 16,568 | Ottawa RCSS | 16,564 | 17,005 |
| Lambton | 15,633 | 16,437 | Lincoln | 15,844 | 16,902 |
| Lambton RCSS | 15,632 | 16,226 | Stormont, Dundas & Glengarry | 15,822 | 16,356 |
| Kent RCSS | 15,223 | 16,140 | Carleton RCSS | 15,338 | 16,188 |
| London-Middlesex RCSS | 15,043 | 15,503 | Renfrew RCSS | 15,753 | 16,061 |
| Elgin RCSS | 14,647 | 14,983 | Stormont, Dundas & Glengarry | 14,852 | 15,310 |
| Windsor | - | - | RCSS | | |
| | | | Prescott & Russell | 14,645 | 15,304 |
| | | | Prescott & Russell RCSS | 14,831 | 15,298 |

Source: Teachers' Salary Data Base, Ministry of Education

TABLE 6.12

AVERAGE TOTAL SALARY AND AVERAGE GRID SALARY OF ELEMENTARY SCHOOL TEACHERS
IN ONTARIO, IN DESCENDING ORDER, BY BOARD, 1976-77

| BOARD | REGION | AVERAGE GRID SALARIES | AVERAGE TOTAL SALARIES | BOARD | REGION | AVERAGE GRID SALARIES | AVERAGE TOTAL SALARIES |
|-----------------------------------|--------|-----------------------------|------------------------------|-----------------------------------|--------|-----------------------------|------------------------------|
| LINCOLN | 6 | 18,175 | 19,297 | BRANT | 5 | 15,608 | 16,563 |
| OTTAWA | 10 | 18,069 | 18,940 | LEEDS & GRENVILLE | 9 | 15,615 | 16,524 |
| ETOBICOKE | 7 | 17,403 | 18,872 | LAKEHEAD RCSS | 1 | 15,684 | 16,495 |
| NORTH YORK | 7 | 17,282 | 18,858 | SUDBURY RCSS | 2 | 15,673 | 16,477 |
| TORONTO | 7 | 17,524 | 18,807 | WATERLOO RCSS | 5 | 15,969 | 16,466 |
| WINDSOR RCSS | 4 | 17,327 | 18,700 | HORNEPAYNE | 2 | 15,814 | 16,456 |
| CARLETON | 10 | 17,729 | 18,617 | WELLINGTON RCSS | 5 | 15,811 | 16,448 |
| EAST YORK | 7 | 16,317 | 18,602 | LAMBTON | 4 | 15,833 | 16,437 |
| LAKEHEAD | 1 | 17,306 | 18,468 | BRUCE | 5 | 15,800 | 16,433 |
| YORK | 7 | 16,838 | 18,443 | COCHRANE - IROQUOIS FALLS | 3 | 15,830 | 16,379 |
| SCARBOROUGH | 7 | 16,809 | 18,334 | STORMONT, DUNDAS & GLENGARRY | 10 | 15,822 | 16,366 |
| KENORA | 1 | 17,811 | 18,329 | LAKE SUPERIOR | 1 | 15,827 | 16,362 |
| NORTH SHORE | 2 | 16,926 | 18,153 | PERTH | 5 | 15,653 | 16,332 |
| PEEL | 7 | 17,161 | 18,152 | EAST PARRY SOUND | 3 | 15,427 | 16,327 |
| SUDBURY | 2 | 16,926 | 18,034 | FT. FRANCIS - RAINY RIVER | 1 | 15,790 | 16,317 |
| KAPISKASING | 3 | 17,469 | 17,921 | OXFORD | 5 | 15,368 | 16,310 |
| LONDON | 4 | 16,966 | 17,800 | TIMISKAMING | 3 | 15,854 | 16,292 |
| WATERLOO | 5 | 16,257 | 17,735 | HALTON RCSS | 7 | 15,217 | 16,267 |
| NIPISSING | 3 | 17,061 | 17,715 | LAMBTON RCSS | 4 | 15,632 | 16,266 |
| HALTON | 7 | 16,701 | 17,665 | CARLETON RCSS | 10 | 15,338 | 16,188 |
| ATIKOKAN | 1 | 16,699 | 17,664 | FRONTENAC | 9 | 14,964 | 16,168 |
| SIMCOE | 7 | 16,441 | 17,501 | LENNOX & ADDINGTON | 9 | 15,674 | 16,141 |
| ELGIN | 4 | 16,411 | 17,477 | KENT RCSS | 4 | 15,223 | 16,134 |
| KIRKLAND LAKE | 3 | 16,514 | 17,475 | SIMCOE RCSS | 7 | 15,597 | 16,100 |
| CENTRAL ALGOMA | 2 | 16,948 | 17,452 | DUFFERIN | 7 | 15,175 | 16,084 |
| GERALDTON | 1 | 17,072 | 17,419 | RENFREW RCSS | 10 | 15,753 | 16,061 |
| RENFREW | 10 | 16,925 | 17,411 | CHAPLEAU | 2 | 15,494 | 16,045 |
| YORK COUNTY | 7 | 16,330 | 17,345 | HEARST | 3 | 15,340 | 16,040 |
| METRO TORONTO RCSS | 7 | 16,509 | 17,277 | PETERBOROUGH ETC RCS | 9 | 15,537 | 16,020 |
| HAMILTON | 6 | 16,286 | 17,271 | PRINCE EDWARD | 9 | 15,090 | 16,001 |
| HURON | 4 | 16,145 | 17,203 | NORTH SHORE RCSS | 2 | 15,322 | 16,000 |
| LINCOLN RCSS | 6 | 16,634 | 17,186 | ATIKOKAN NO. 1 RCSS | 1 | 15,454 | 16,004 |
| SAULT STE MARIE | 2 | 16,543 | 17,184 | HALIBURTON | 7 | 15,318 | 16,004 |
| DUPHRE | 7 | 16,265 | 17,152 | HURON - PERTH RCSS | 5 | 15,244 | 16,001 |
| ELGIN | 4 | 16,272 | 17,100 | MANITOULIN | 2 | 15,152 | 16,000 |
| RENFREW | 10 | 15,998 | 17,097 | KIRKLAND LAKE RCSS | 3 | 15,247 | 16,000 |
| WEST PARRY SOUND | 3 | 16,116 | 17,032 | HASTINGS - PRINCE EDWARD RCSS | 9 | 15,210 | 16,014 |
| MUSKOKA | 8 | 16,459 | 17,013 | HALDIMAND | 6 | 15,050 | 16,012 |
| OTTAWA RCSS | 1 | 16,546 | 17,005 | YORK COUNTY RCSS | 7 | 14,901 | 16,005 |
| HAMILTON - WENTWORTH RCSS | 6 | 16,031 | 16,987 | VICTORIA | 7 | 14,721 | 16,000 |
| OFYDEN RCSS | 1 | 16,735 | 16,983 | LONDON - MIDDLESEX RCS | 4 | 15,043 | 16,003 |
| NIAGARA SOUTH | 6 | 16,384 | 16,971 | RED LAKE | 1 | 15,107 | 16,019 |
| NIPISGON - RED ROCK | 1 | 16,137 | 16,951 | MICHIPICOTEN | 2 | 14,841 | 16,001 |
| OFYDEN | 1 | 16,563 | 16,956 | NORTH OF SUPERIOR RC | 1 | 14,934 | 16,000 |
| KAPISKASING RCSS | 3 | 16,462 | 16,939 | BRANT RCSS | 5 | 15,089 | 16,003 |
| LANARK | 10 | 15,844 | 16,902 | STORMONT, DUNDAS & GLENGARRY RCSS | 10 | 14,852 | 16,000 |
| NORFOLK | 6 | 15,771 | 16,875 | PRESCOTT & RUSSELL | 10 | 14,645 | 16,004 |
| WENTWORTH | 6 | 15,781 | 16,854 | PRESCOTT & RUSSELL RCSS | 10 | 14,831 | 16,000 |
| PETERBOROUGH | 9 | 16,444 | 16,852 | OXFORD RCSS | 5 | 14,679 | 16,000 |
| FRONTENAC, LENNOX & ADDING RCSS | 9 | 16,392 | 16,844 | ESPAÑOLA | 7 | 14,435 | 16,000 |
| WELLINGTON | 5 | 16,210 | 16,774 | HALDIMAND - NORFOLK RC | 6 | 14,143 | 16,000 |
| MIDDLESEX | 4 | 16,151 | 16,751 | BRUCE - GREY RCSS | 5 | 14,503 | 16,000 |
| STORMONT, DUNDAS & GLENGARRY RCSS | 9 | 16,232 | 16,747 | HEARST RCSS | 3 | 14,746 | 16,001 |
| NIAGARA NORTH | 3 | 16,197 | 16,691 | TIMMINS RCSS | 3 | 14,493 | 16,000 |
| KENORA | 1 | 16,106 | 16,687 | ELGIN RCSS | 4 | 14,647 | 16,000 |
| DUFFERIN - PEEL RCSS | 7 | 15,896 | 16,683 | GERALDTON RCSS | 1 | 14,573 | 16,004 |
| KENT | 4 | 15,849 | 16,659 | MICHIPICOTEN RCSS | 2 | 14,226 | 16,000 |
| FT. FRANCIS - RAINY RIVER | 1 | 16,175 | 16,651 | COCHRANE - IROQUOIS FALLS RCSS | 3 | 14,575 | 16,004 |
| TIMMINS | 3 | 15,749 | 16,632 | LANARK - LEEDS & GRENVILLE RCSS | 9 | 14,626 | 16,000 |
| SAULT STE MARIE | 2 | 16,017 | 16,622 | TIMISKAMING RCSS | 3 | 13,977 | 16,000 |
| WELLAND RC | 6 | 16,162 | 16,586 | CHAPLEAU, PANET RCSS | 2 | 12,626 | 16,000 |
| ELGIN | 4 | 15,709 | 16,568 | WINDSOR | 4 | - | - |

Source: Teachers' Salary Data Base, Ministry of Education

TABLE 6.13

AVERAGE TOTAL SALARY AND AVERAGE GRID SALARY OF SECONDARY SCHOOL TEACHERS IN
ONTARIO BY REGION AND BOARD, 1976-77

| | AVERAGE GRID SALARIES | AVERAGE TOTAL SALARIES | | AVERAGE GRID SALARIES | AVERAGE TOTAL SALARIES |
|-------------------------|--------------------------|---------------------------|-------------------------------|--------------------------|---------------------------|
| <u>REGION 1</u> | | | <u>REGION 6</u> | | |
| Atikokan | 22,036 | 23,423 | Lincoln | 21,860 | 22,752 |
| Kenora | 20,700 | 22,211 | Hamilton | 21,207 | 22,307 |
| Lakehead | 21,064 | 21,898 | Norfolk | 20,952 | 21,944 |
| Ft. Francis-R.R. | 20,451 | 21,349 | Wentworth | 20,179 | 21,362 |
| Geraldton | 20,427 | 21,262 | Niagara South | 19,687 | 20,913 |
| Dryden | 19,567 | 20,634 | Haldimand | 19,327 | 20,380 |
| Nipigon-Red Rock | 18,580 | 20,347 | | | |
| Lake Superior | 18,118 | 19,371 | <u>REGION 7</u> | | |
| Red Lake | 18,257 | 19,291 | Toronto | 21,230 | 22,477 |
| <u>REGION 2</u> | | | North York | 20,838 | 22,295 |
| Espanola | 20,680 | 21,723 | Etobicoke | 21,002 | 22,292 |
| Sault Ste. Marie | 20,767 | 21,541 | Simcoe | 21,316 | 22,227 |
| North Shore | 19,662 | 21,541 | East York | 20,281 | 22,191 |
| Sudbury | 19,416 | 20,804 | York | 20,626 | 22,139 |
| Central Algoma | 19,363 | 20,768 | Scarborough | 20,564 | 21,855 |
| Manitoulin | 20,032 | 20,706 | York County | 20,724 | 21,718 |
| Chapleau | 19,051 | 20,384 | Durham | 20,682 | 21,664 |
| Michipicoten | 18,715 | 20,234 | Peel | 20,640 | 21,503 |
| Hornepayne | 17,630 | 18,986 | Halton | 20,308 | 21,399 |
| | | | Victoria | 20,060 | 21,285 |
| <u>REGION 3</u> | | | Dufferin | 19,686 | 20,727 |
| Nipissing | 21,464 | 22,549 | Haliburton | 17,890 | 18,856 |
| West Parry Sound | 21,092 | 21,824 | | | |
| Kirkland Lake | 20,370 | 21,338 | <u>REGION 9</u> | | |
| Muskoka | 21,145 | 20,973 | Leeds & Greenville | 20,837 | 22,092 |
| Timmins | 19,752 | 20,651 | Peterborough | 20,818 | 21,478 |
| Timiskaming | 19,695 | 20,969 | Lennox & Addington | 20,540 | 21,331 |
| Kapuskasing | 19,161 | 20,549 | Northumberland & New Castle | 19,844 | 20,913 |
| Cochrane-Iroquois Falls | 18,869 | 19,837 | Prince Edward | 19,556 | 20,822 |
| East Parry Sound | 18,383 | 19,321 | Frontenac | 20,020 | 20,525 |
| Hearst | 16,657 | 17,621 | Hastings | 18,850 | 20,163 |
| <u>REGION 4</u> | | | <u>REGION 10</u> | | |
| Windsor | 20,745 | 22,045 | Ottawa* | 22,425 | 23,801 |
| London | 20,725 | 21,848 | Carleton | 22,274 | 24,028 |
| Huron | 19,704 | 21,549 | Renfrew | 20,272 | 21,450 |
| Kent | 19,955 | 21,009 | Stormont, Dundas & Glengarry* | 20,358 | 21,002 |
| Middlesex | 19,627 | 20,880 | Lanark | 19,886 | 20,845 |
| Essex* | 19,649 | 20,478 | Prescott & Russell | 19,098 | 19,838 |
| Elgin | 19,432 | 20,358 | | | |
| Lambton | 19,046 | 20,122 | | | |
| <u>REGION 5</u> | | | | | |
| Grey | 20,458 | 23,109 | | | |
| Waterloo | 21,492 | 23,088 | | | |
| Wellington | 20,013 | 21,393 | | | |
| Oxford | 20,275 | 21,380 | | | |
| Brant* | 20,271 | 21,147 | | | |
| Bruce | 20,075 | 21,113 | | | |
| Perth | 19,987 | 20,928 | | | |

*Subject to AIB Approval.

Source: Teachers' Salary Data Base---Ministry of Education.

TABLE 6.14

AVERAGE TOTAL SALARY AND AVERAGE GRID SALARY OF SECONDARY SCHOOL
TEACHERS IN ONTARIO, IN DESCENDING ORDER, BY BOARD, 1976-77

| BOARD | REGION | AVERAGE GRID SALARIES | AVERAGE TOTAL SALARIES |
|-------------------------------|--------|--------------------------|---------------------------|
| OTTAWA* | 10 | 22,425 | 24,291 |
| CARLETON | 10 | 22,274 | 24,028 |
| ATIKOKAN | 1 | 22,036 | 23,423 |
| GREY | 5 | 20,458 | 23,109 |
| WATERLOO | 5 | 21,492 | 23,088 |
| LINCOLN | 6 | 21,860 | 22,752 |
| NIPISSING | 3 | 21,464 | 22,549 |
| TORONTO | 7 | 21,230 | 22,477 |
| HAMILTON | 6 | 21,207 | 22,307 |
| NORTH YORK | 7 | 20,838 | 22,295 |
| ETOBICOKE | 7 | 21,002 | 22,292 |
| SIMCOE | 7 | 21,316 | 22,227 |
| KENORA | 1 | 20,700 | 22,211 |
| EAST YORK | 7 | 20,281 | 22,191 |
| YORK | 7 | 20,626 | 22,139 |
| LEEDS & GRENVILLE | 9 | 20,837 | 22,092 |
| WINDSOR | 4 | 20,745 | 22,045 |
| NORFOLK | 6 | 20,952 | 21,944 |
| LAKEHEAD | 1 | 21,064 | 21,898 |
| SCARBOROUGH | 7 | 20,564 | 21,855 |
| LONDON | 4 | 20,725 | 21,848 |
| WEST PARRY SOUND | 3 | 21,092 | 21,824 |
| ESPANOLA | 2 | 20,680 | 21,723 |
| YORK COUNTY | 7 | 20,724 | 21,718 |
| DURHAM | 7 | 20,682 | 21,664 |
| HURON | 4 | 19,704 | 21,549 |
| SAULT STE. MARIE | 2 | 20,767 | 21,541 |
| NORTH SHORE | 2 | 19,662 | 21,541 |
| PEEL | 7 | 20,640 | 21,503 |
| PETERBOROUGH | 9 | 20,818 | 21,478 |
| RENFREW | 10 | 20,272 | 21,458 |
| HALTON | 7 | 20,308 | 21,399 |
| WELLINGTON | 5 | 20,013 | 21,393 |
| OXFORD | 5 | 20,275 | 21,380 |
| WENTWORTH | 6 | 20,179 | 21,362 |
| FT. FRANCES-RAINY RIVER | 1 | 20,451 | 21,349 |
| KIRKLAND LAKE | 3 | 20,370 | 21,338 |
| LENNOX & ADDINGTON | 9 | 20,540 | 21,331 |
| VICTORIA | 7 | 20,060 | 21,285 |
| GERALDTON | 1 | 20,427 | 21,262 |
| BRANT* | 5 | 20,271 | 21,147 |
| BRUCE | 5 | 20,075 | 21,115 |
| KENT | 4 | 19,955 | 21,009 |
| STORMONT, DUNDAS & GLENGARRY* | 10 | 20,358 | 21,002 |
| MUSKOKA | 3 | 20,145 | 20,973 |
| TIMISKAMING | 3 | 19,695 | 20,969 |
| PERTH | 5 | 19,987 | 20,928 |
| NORTHUMBERLAND & NEWCASTLE | 9 | 19,844 | 20,913 |
| NIAGARA SOUTH | 6 | 19,687 | 20,913 |
| MIDDLESEX | 4 | 19,627 | 20,880 |
| LANARK | 10 | 19,886 | 20,845 |
| PRINCE EDWARD | 9 | 19,556 | 20,822 |
| SUDBURY | 2 | 19,416 | 20,804 |
| CENTRAL ALGOMA | 2 | 19,363 | 20,768 |
| DUFFERIN | 7 | 19,686 | 20,727 |
| MANITOULIN | 2 | 20,032 | 20,706 |
| TIMMINS | 3 | 19,752 | 20,651 |
| DRYDEN | 1 | 19,567 | 20,634 |
| KAPUSKASING | 3 | 19,161 | 20,549 |
| FRONTENAC | 9 | 20,020 | 20,525 |
| ESSEX* | 4 | 19,649 | 20,478 |
| CHAPLEAU | 2 | 19,051 | 20,384 |
| HALDIMAND | 6 | 19,327 | 20,380 |
| ELGIN | 4 | 19,432 | 20,358 |
| NIPIGON-RED ROCK | 1 | 18,580 | 20,347 |
| MICHIPICOTEN | 2 | 18,715 | 20,234 |
| HASTINGS | 9 | 18,850 | 20,163 |
| LAMBTON | 4 | 19,046 | 20,122 |
| PRESCOTT & RUSSELL | 10 | 19,098 | 19,838 |
| COCHRANE-IROQUOIS FALLS | 3 | 18,869 | 19,837 |
| LAKE SUPERIOR | 1 | 18,118 | 19,371 |
| EAST PARRY SOUND | 3 | 18,383 | 19,321 |
| RED LAKE | 1 | 18,257 | 19,291 |
| HORNEPAYNE | 2 | 17,630 | 18,986 |
| HALIBURTON | 7 | 17,890 | 18,856 |
| HEARST | 3 | 16,657 | 17,621 |

*Subject to AIB Approval.

Source: Teachers' Salary Data Base - Ministry of Education.

TABLE 6.15

ELEMENTARY SCHOOL TEACHERS AVERAGE SALARY BY REGION 1970/71 to 1976/77

| YEAR | REGIONS | | | | | | | | | | PROVINCIAL TOTAL | |
|------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------|------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7* | 9 | 10 | 1-10* | | Metro Toronto |
| 1970 | 7,928 | 7,861 | 7,837 | 7,802 | 7,693 | 7,866 | 7,875 | 7,531 | 7,703 | 7,783 | 8,208 | 7,888 |
| 1971 | 8,077 | 8,527 | 7,930 | 8,291 | 7,953 | 8,250 | 8,343 | 7,791 | 8,196 | 8,179 | 8,764 | 8,336 |
| 1972 | 8,897 | 9,292 | 8,483 | 9,057 | 8,519 | 8,715 | 8,858 | 8,304 | 8,476 | 8,770 | 9,345 | 8,962 |
| 1973 | 9,621 | 9,904 | 9,416 | 9,570 | 9,298 | 9,829 | 9,606 | 9,169 | 9,779 | 9,571 | 10,513 | 9,823 |
| 1974 | 11,492 | 11,353 | 11,616 | 11,418 | 10,912 | 11,643 | 11,073 | 10,908 | 11,682 | 11,319 | 11,285 | 11,311 |
| 1975 | 14,243 | 14,094 | 13,816 | 14,546 | 13,905 | 14,185 | 14,289 | 13,704 | 13,846 | 14,114 | 15,220 | 14,372 |
| 1976 | 16,429 | 16,133 | 15,836 | 16,208 | 15,851 | 16,411 | 16,318 | 15,739 | 16,519 | 16,200 | 17,003 | 16,391 |

Note: Average Salaries for elementary teachers represent basic on grid salaries excluding allowances paid to teachers on the regular grid distribution and salaries paid to staff (i.e. principals) not on the regular grid distribution.

* Excludes Metro Toronto

Source: For years 1970-71 to 1973-74, taken from salary schedule data published by the Ontario School Trustee's Association. Base--Ministry of Education.

TABLE 6.16

SECONDARY SCHOOL TEACHERS AVERAGE SALARY BY REGION 1966/67 TO 1967/77

| YEAR | REGIONS | | | | | | | | | | | PROVINCIAL TOTAL |
|------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------------|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7* | 9 | 10 | 1-10* | Metro Toronto | |
| 1966 | 7,994 | 8,011 | 8,190 | 8,210 | 7,982 | 8,039 | 8,335 | 7,809 | 7,815 | 8,063 | 8,631 | 8,208 |
| 1967 | 8,953 | 9,022 | 9,228 | 9,205 | 9,005 | 9,002 | 9,316 | 8,843 | 8,815 | 9,065 | 9,728 | 9,230 |
| 1968 | 9,530 | 9,523 | 9,766 | 9,757 | 9,554 | 9,559 | 9,781 | 9,437 | 9,326 | 9,595 | 10,054 | 9,711 |
| 1969 | 10,175 | 10,325 | 10,450 | 10,332 | 10,268 | 10,318 | 10,516 | 10,028 | 10,025 | 10,283 | 10,849 | 10,420 |
| 1970 | 10,668 | 11,094 | 11,182 | 11,100 | 11,091 | 11,184 | 11,304 | 10,821 | 10,923 | 11,084 | 11,807 | 11,258 |
| 1971 | 11,607 | 11,739 | 11,582 | 11,712 | 11,665 | 11,960 | 11,921 | 11,405 | 11,449 | 11,708 | 12,431 | 11,887 |
| 1972 | 12,276 | 12,519 | 12,329 | 12,269 | 12,467 | 12,704 | 12,779 | 12,001 | 12,490 | 12,477 | 13,605 | 12,755 |
| 1973 | 12,916 | 13,318 | 13,151 | 13,016 | 13,291 | 13,670 | 13,463 | 12,564 | 13,054 | 13,217 | 14,420 | 13,508 |
| 1974 | 14,416 | 14,978 | 14,793 | 14,558 | 14,996 | 15,444 | 15,483 | 14,858 | 15,396 | 15,095 | 15,911 | 15,300 |
| 1975 | 16,719 | 16,124 | 17,250 | 17,503 | 17,728 | 18,747 | 17,630 | 17,291 | 18,416 | 17,693 | 16,032 | 17,319 |
| 1976 | 20,391 | 18,986 | 20,680 | 20,331 | 20,134 | 21,013 | 20,703 | 18,864 | 21,949 | 20,489 | 21,592 | 20,714 |

Note: Average salaries for secondary teachers represent total salaries including allowances. Salaries are for the most part in September of each year. In many cases, teachers receive an increase in their salaries in the second half of the school year. Also, for 1975/76, many boards (i.e., Metro Toronto) did not reach a 1975/76 salary agreement when the survey was taken and the salaries reported reflect the 1974/75 agreement.

* Excludes Metro Toronto

Source: Annual computer files maintained by the OSSTF.

TABLE 6.17
ELEMENTARY SCHOOL TEACHERS IN ONTARIO - RESPONSIBILITY BY AGE AND SEX 1976-77

| AGE | MALE | | | | | Total | FEMALE | | | | | Total |
|------------|-------------|------------------|--------------|------------|-----------------|--------|-------------|------------------|--------------|------------|-----------------|--------|
| | Princ. 1 | Vice-Princ. 2 | Teacher 3 | Other 4 | Dept. Head 5 | | Princ. 1 | Vice-Princ. 2 | Teacher 3 | Other 4 | Dept. Head 5 | |
| 24 or less | 0 | 0 | 585 | 29 | 0 | 614 | 0 | 0 | 3,463 | 230 | 2 | 3,695 |
| 25 to 29 | 73 | 83 | 5,166 | 287 | 48 | 5,657 | 14 | 18 | 12,966 | 1,049 | 25 | 14,072 |
| 30 to 34 | 433 | 393 | 3,641 | 276 | 173 | 4,913 | 35 | 44 | 6,033 | 920 | 58 | 7,090 |
| 35 to 39 | 1,013 | 412 | 1,415 | 183 | 124 | 3,147 | 70 | 52 | 3,925 | 696 | 37 | 4,780 |
| 40 to 44 | 647 | 151 | 591 | 75 | 60 | 1,524 | 84 | 45 | 2,478 | 483 | 26 | 3,116 |
| 45 to 49 | 404 | 64 | 308 | 44 | 33 | 813 | 88 | 33 | 1,894 | 402 | 33 | 2,450 |
| 50 to 54 | 236 | 36 | 179 | 25 | 18 | 494 | 82 | 24 | 1,304 | 311 | 25 | 1,747 |
| 55 to 59 | 30 | 6 | 45 | 17 | 5 | 113 | 55 | 14 | 800 | 209 | 14 | 1,092 |
| 60 to 64 | 23 | 7 | 43 | 17 | 3 | 88 | 34 | 4 | 494 | 16 | 15 | 671 |
| 65 or more | 0 | 2 | 3 | 0 | 0 | 5 | 3 | 0 | 13 | 3 | 0 | 19 |
| Total | 2,976 | 1,154 | 12,026 | 948 | 464 | 17,568 | 461 | 237 | 33,370 | 4,429 | 235 | 38,732 |

Source: Teacher Information File--Ministry of Education.

TABLE 6.18
SECONDARY SCHOOL TEACHERS IN ONTARIO - RESPONSIBILITY BY AGE AND BY SEX - 1976-77

| AGE | MALE | | | | | | | | | TOTAL |
|------------|--------|-------------|---------|---------|------------|--------------------|------------------|----------------|---------|--------|
| | Princ. | Vice-Princ. | Co-ord. | Direct. | Dept. Head | Assist. Dept. Head | Subject Chairman | Master Teacher | Teacher | |
| 24 or less | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 166 | 167 |
| 25 to 29 | 0 | 0 | 4 | 2 | 81 | 79 | 18 | 0 | 2,275 | 2,459 |
| 30 to 34 | 5 | 43 | 31 | 27 | 719 | 618 | 68 | 1 | 3,953 | 5,465 |
| 35 to 39 | 71 | 239 | 47 | 75 | 1,261 | 575 | 86 | 1 | 2,635 | 4,990 |
| 40 to 44 | 125 | 201 | 44 | 116 | 901 | 327 | 48 | 5 | 1,770 | 3,537 |
| 45 to 49 | 149 | 109 | 40 | 105 | 652 | 243 | 44 | 2 | 1,280 | 2,624 |
| 50 to 54 | 129 | 98 | 26 | 94 | 436 | 139 | 22 | 1 | 932 | 1,874 |
| 55 to 59 | 66 | 44 | 16 | 48 | 260 | 82 | 14 | 0 | 566 | 1,096 |
| 60 to 64 | 27 | 17 | 9 | 17 | 112 | 49 | 6 | 0 | 225 | 308 |
| 65 or more | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 16 |
| Total | 572 | 746 | 217 | 484 | 4,427 | 2,107 | 300 | 10 | 13,815 | 22,681 |

| AGE | FEMALE | | | | | | | | | TOTAL |
|------------|--------|-------------|---------|---------|------------|--------------------|------------------|----------------|---------|-------|
| | Princ. | Vice-Princ. | Co-ord. | Direct. | Dept. Head | Assist. Dept. Head | Subject Chairman | Master Teacher | Teacher | |
| 24 or less | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 305 | 308 |
| 25 to 29 | 0 | 0 | 4 | 0 | 128 | 120 | 31 | 0 | 2,166 | 2,449 |
| 30 to 34 | 0 | 3 | 9 | 0 | 269 | 177 | 27 | 1 | 1,685 | 2,171 |
| 35 to 39 | 0 | 3 | 11 | 4 | 163 | 82 | 14 | 1 | 770 | 1,048 |
| 40 to 44 | 3 | 0 | 8 | 8 | 121 | 68 | 18 | 1 | 604 | 840 |
| 45 to 49 | 0 | 11 | 1 | 8 | 128 | 62 | 15 | 0 | 565 | 794 |
| 50 to 54 | 1 | 4 | 3 | 5 | 110 | 51 | 15 | 1 | 448 | 637 |
| 55 to 59 | 0 | 8 | 3 | 3 | 96 | 4 | 4 | 1 | 312 | 434 |
| 60 to 64 | 0 | 0 | 4 | 4 | 51 | 4 | 4 | 1 | 165 | 238 |
| 65 or more | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 13 | 16 |
| Total | 1 | 4 | 44 | 3 | 1,009 | 568 | 130 | 6 | 7,033 | 8,935 |

Source: Annual computer files maintained by the OSSTF.

TABLE 6.19

CHARACTERISTICS OF ELEMENTARY SCHOOL TEACHERS IN ONTARIO: AVERAGE AGE, AVERAGE QUALIFICATION CATEGORY AND AVERAGE YEARS OF EXPERIENCE, BY REGION, 1976-1977

| REGION | AVERAGE AGE | AVERAGE QUALIFICATION CATEGORY | AVERAGE EXPERIENCE |
|-------------|-------------|--------------------------------|--------------------|
| 1 | 34.0 | 3.9 | 9.5 |
| 2 | 33.8 | 3.6 | 10.3 |
| 3 | 34.2 | 3.5 | 10.2 |
| 4 | 33.7 | 4.1 | 9.6 |
| 5 | 33.4 | 4.0 | 9.3 |
| 6 | 33.7 | 3.9 | 9.7 |
| 7 | 33.3 | 3.8 | 8.9 |
| excl. Metro | | | |
| 9 | 35.0 | 3.6 | 10.7 |
| 10 | 34.4 | 3.7 | 10.6 |
| 1-10 | 33.8 | 3.8 | 9.7 |
| Metro | 33.3 | 4.2 | 8.7 |
| Prov. | 33.7 | 3.9 | 9.5 |

Source: Elementary: Teacher Information File, Ministry of Education.

TABLE 6.20

CHARACTERISTICS OF SECONDARY SCHOOL TEACHERS IN ONTARIO: AVERAGE AGE, AVERAGE QUALIFICATION CATEGORY AND AVERAGE YEARS OF EXPERIENCE, BY REGION, 1976-1977

| REGION | AVERAGE AGE | AVERAGE QUALIFICATION CATEGORY | AVERAGE EXPERIENCE |
|-------------|-------------|--------------------------------|--------------------|
| 1 | 38.0 | 3.1 | 8.5 |
| 2 | 37.5 | 3.2 | 8.6 |
| 3 | 38.7 | 3.1 | 9.1 |
| 4 | 38.5 | 3.2 | 9.1 |
| 5 | 38.8 | 3.3 | 9.7 |
| 6 | 39.2 | 3.2 | 9.8 |
| 7 | 38.0 | 3.3 | 8.3 |
| excl. Metro | | | |
| 9 | 38.7 | 3.1 | 9.1 |
| 10 | 38.9 | 3.1 | 9.1 |
| 1-10 | 38.5 | 3.2 | 9.0 |
| Metro | 38.4 | 3.2 | 8.4 |
| Prov. | 38.5 | 3.2 | 8.9 |

Source: Annual Computer Secondary Files Maintained by OSSTF.

TABLE 6.21

ELEMENTARY SCHOOL TEACHERS IN ONTARIO: CHANGES IN AVERAGE QUALIFICATION CATEGORY AND AVERAGE EXPERIENCE, 1970-71 TO 1976-77

| REGION | AVERAGE QUALIFICATIONS CATEGORY | | | AVERAGE EXPERIENCE* | | |
|----------|---------------------------------|---------|--------|---------------------|---------|--------|
| | 1970-71 | 1976-77 | CHANGE | 1970-71 | 1976-77 | CHANGE |
| 1 | 2.0 | 3.9 | 1.9 | 8.0 | 9.5 | 1.5 |
| 2 | 1.9 | 3.6 | 1.7 | 7.8 | 10.3 | 2.5 |
| 3 | 1.8 | 3.5 | 1.7 | 8.4 | 10.2 | 1.8 |
| 4 | 2.2 | 4.1 | 1.9 | 8.5 | 9.6 | 1.1 |
| 5 | 2.1 | 4.0 | 1.9 | 8.4 | 9.3 | 0.9 |
| 6 | 2.4 | 3.9 | 1.5 | 8.3 | 9.7 | 1.4 |
| | 2.0 | 3.8 | 1.8 | 8.1 | 8.9 | 0.8 |
| 1. Metro | | | | | | |
| 9 | 1.9 | 3.6 | 1.7 | 9.0 | 10.7 | 1.7 |
| 10 | 2.1 | 3.7 | 1.6 | 8.3 | 10.6 | 2.3 |
| 1-10 | 1.9 | 3.8 | 1.9 | 8.3 | 9.7 | 1.4 |
| Metro | 2.4 | 4.2 | 1.8 | 7.4 | 8.7 | 1.3 |
| Prov. | 2.1 | 3.9 | 1.8 | 8.1 | 9.5 | 1.4 |

*Experience for 1970/71 was reported by most boards to a maximum of 16 years. The data was then adjusted to be comparable to the 1976/77 data which reflects actual experience in years.

Source: Elementary:Teacher Information File, Ministry of Education.

TABLE 6.22
SECONDARY SCHOOL TEACHERS IN ONTARIO: CHANGES IN AVERAGE AGE, AVERAGE QUALIFICATION CATEGORY, AND AVERAGE EXPERIENCE, 1970-71 TO 1976-77

| REGION | AVERAGE AGE | | CHANGE | | AVERAGE QUALIFICATIONS CATEGORY | | CHANGE | | AVERAGE EXPERIENCE | | CHANGE |
|--------|-------------|---------|---------|---------|---------------------------------|---------|---------|---------|--------------------|---------|--------|
| | 1966-67 | 1976-77 | 1966-67 | 1976-77 | 1966-67 | 1976-77 | 1966-67 | 1976-77 | 1966-67 | 1976-77 | |
| 1 | 35.0 | 38.0 | 3.0 | | 2.2 | 3.1 | 0.9 | | 4.8 | 8.5 | 3.7 |
| 2 | 34.2 | 37.5 | 3.3 | | 2.3 | 3.2 | 0.9 | | 4.9 | 8.6 | 3.7 |
| 3 | 36.3 | 38.7 | 2.4 | | 2.3 | 3.1 | 0.8 | | 5.8 | 9.1 | 3.3 |
| 4 | 36.0 | 38.5 | 2.5 | | 2.5 | 3.2 | 0.7 | | 6.5 | 9.1 | 2.6 |
| 5 | 36.0 | 38.8 | 2.8 | | 2.6 | 3.3 | 0.7 | | 6.5 | 9.7 | 3.2 |
| 6 | 35.8 | 39.2 | 3.4 | | 2.5 | 3.2 | 0.7 | | 6.1 | 9.8 | 3.7 |
| 7 * | 36.4 | 38.0 | 1.6 | | 2.6 | 3.3 | 0.7 | | 6.3 | 8.3 | 2.0 |
| 9 | 36.3 | 38.7 | 2.4 | | 2.4 | 3.1 | 0.7 | | 5.9 | 9.1 | 3.2 |
| 10 | 35.2 | 38.9 | 3.7 | | 2.1 | 3.1 | 1.0 | | 5.5 | 9.1 | 3.6 |
| 1-10 * | 35.8 | 38.5 | 2.7 | | 2.4 | 3.2 | 0.8 | | 6.0 | 9.0 | 3.0 |
| Metro | 35.5 | 38.4 | 2.9 | | 2.6 | 3.2 | 0.6 | | 6.1 | 8.4 | 2.3 |
| Prov. | 35.7 | 38.5 | 2.8 | | 2.5 | 3.2 | 0.7 | | 6.0 | 8.9 | 2.9 |

*Excluding Metro Toronto

Source: Annual Computer Secondary Files Maintained by the OSSTF.

TABLE 6.23

ELEMENTARY AND SECONDARY SCHOOL TEACHERS IN ONTARIO, CHANGES IN
AVERAGE SALARY, 1970-71 TO 1976-77 FOR ELEMENTARY AND 1966-67 TO
1976-77 FOR SECONDARY

| REGION | ELEMENTARY AVERAGE SALARIES ¹ | | | SECONDARY AVERAGE SALARIES ² | | |
|--------|------------------------------------------|---------|----------|-----------------------------------------|---------|----------|
| | 1970-71 | 1976-77 | % Change | 1966-67 | 1976-77 | % Change |
| 1 | 7,928 | 16,429 | 107.2 | 7,994 | 20,391 | 155.1 |
| 2 | 7,861 | 16,133 | 105.2 | 8,011 | 18,986 | 137.0 |
| 3 | 7,837 | 15,836 | 102.1 | 8,190 | 20,680 | 152.5 |
| 4 | 7,802 | 16,208 | 107.7 | 8,210 | 20,331 | 147.6 |
| 5 | 7,693 | 15,851 | 106.0 | 7,982 | 20,134 | 152.2 |
| 6 | 7,866 | 16,411 | 108.6 | 8,039 | 21,013 | 161.4 |
| 7* | 7,875 | 16,318 | 107.2 | 8,335 | 20,703 | 148.4 |
| 9 | 7,531 | 15,739 | 109.0 | 7,809 | 18,864 | 141.6 |
| 10 | 7,708 | 16,519 | 114.3 | 7,815 | 21,949 | 180.9 |
| 1-10* | 7,783 | 16,200 | 108.1 | 8,063 | 20,489 | 154.1 |
| Metro | 8,208 | 17,003 | 107.2 | 8,631 | 21,592 | 150.2 |
| Prov. | 7,888 | 16,391 | 107.8 | 8,208 | 20,714 | 152.4 |

¹On grid salaries (excl. allow.)

²Total salaries (incl. allow.)

*Excluding Metro Toronto

Source: Elementary: Teacher Information File, Ministry of Education;
Secondary: Computer Files maintained by the OSSTF.

chapter, on Costs of Education. With inflation galloping ahead so strongly, and in light of wage and salary increases in other sectors, these large increases in the salaries of teachers are certainly not out of line. But the whole series of "waves" do move together--older teachers with more experience and better qualifications receiving higher salaries. The lag in salary increases, if indeed there is one, which is a moot point, is certainly not very great.

Before leaving this section on characteristics and proceeding to a discussion of teacher education, it is worth the time, even at the risk of some repetition, to look rather closely at the prospects of retirement for these young teachers. One can look at it under the "90 clause" (years of service plus age) and the more usual 65-and-out age rule. Besides, this little side journey will introduce us to some of the problems we are going to run into head-on when we study the superannuation plan for teachers and any variations which may be suggested, such as an early retirement incentive plan. Again, we need only skim the surface at this point, largely because even this glance will reveal the magnitude of the problems facing us during the initial period when so few teachers will reach pensionable age and during the new period when the superannuation fund will be drawn upon by large numbers within a period of at most 10 years.

For the elementary school teachers I have shown for each five-year period to 2010 the percentage and cumulative percentage of male and female teachers, separately and combined, eligible for retirement under the age 65 rule (see Table 6.24) and under the 65 + 90 rule (that is, retirement at age 65 or age plus years of service equals 90, whichever comes first. See Table 6.25). Note the low percentages eligible for retirement by the year 2000 under the age 65 rule, as compared with the percentages under the 65 + 90 rule. The differences between males and females is also substantial, but the 65 + 90 rule would in any event result in much higher percentages of retirement; practically all of the teachers by 2010 under the latter and barely half under the age 65 rule. There will be competing sets of interests at work, naturally, between those concerned

TABLE 6.24

ESTIMATED PERIOD OF RETIREMENT OF ELEMENTARY SCHOOL TEACHERS IN ONTARIO
AT AGE 65, BY SEX AND PERCENT OF TOTAL TEACHING FORCE IN 1976-77

| YEARS | MALE | | FEMALE | | TOTAL | |
|---------|------------|-----------------------|------------|-----------------------|------------|-----------------------|
| | Percentage | Cumulative Percentage | Percentage | Cumulative Percentage | Percentage | Cumulative Percentage |
| 1976-80 | 0.3 | 0.3 | 1.1 | 1.1 | 0.9 | 0.9 |
| 1981-85 | 1.0 | 1.3 | 2.6 | 3.7 | 2.0 | 2.9 |
| 1986-90 | 2.3 | 3.6 | 4.1 | 7.8 | 3.6 | 6.5 |
| 1991-95 | 4.5 | 8.1 | 5.6 | 13.4 | 5.3 | 11.8 |
| 1996-00 | 7.6 | 15.7 | 7.5 | 20.9 | 7.5 | 19.3 |
| 2001-05 | 14.5 | 30.2 | 11.2 | 32.1 | 12.2 | 31.5 |
| 2006-10 | 24.7 | 54.9 | 15.6 | 47.7 | 18.4 | 49.9 |

Source: Elementary: Teacher Information file, Ministry of Education.

TABLE 6.25

ESTIMATED PERIOD OF RETIREMENT OF ELEMENTARY SCHOOL TEACHERS IN ONTARIO
AT AGE 65 OR ON THE BASIS OF AGE PLUS EXPERIENCE EQUALS 90, WHICHEVER
COMES FIRST, BY SEX AND PERCENT OF TOTAL TEACHING FORCE IN 1976-77

| YEARS | MALE | | FEMALE | | TOTAL | |
|---------|------------|-----------------------|------------|-----------------------|------------|-----------------------|
| | Percentage | Cumulative Percentage | Percentage | Cumulative Percentage | Percentage | Cumulative Percentage |
| 1976-80 | 1.6 | 1.6 | 3.5 | 3.5 | 2.9 | 2.9 |
| 1981-85 | 3.7 | 5.3 | 4.3 | 7.8 | 4.2 | 7.1 |
| 1986-90 | 6.3 | 11.6 | 6.6 | 14.4 | 6.4 | 13.5 |
| 1991-95 | 12.9 | 24.5 | 10.5 | 24.9 | 11.3 | 24.8 |
| 1996-00 | 21.2 | 45.7 | 16.6 | 41.5 | 18.0 | 42.8 |
| 2001-05 | 33.1 | 78.8 | 31.1 | 72.6 | 31.7 | 74.5 |
| 2006-10 | 21.1 | 99.9 | 27.0 | 99.6 | 25.2 | 99.7 |

Source: Elementary: Teacher Information File, Ministry of Education.

with the soundness of the superannuation fund and those wishing to retire as many as possible as early as possible to permit the younger teachers to enter the force.

Similar tables have been prepared for the secondary school teachers, as shown in Tables 6.26 and 6.27, but here the pattern is quite different. The males hold a definite advantage over the females under both retirement rules and very heavily so in the case of the age 65 rule. Also a much higher percentage will be eligible for retirement in earlier years than in the case for the elementary school teachers. Many readers will, upon reflection on the number of teachers we pushed into elementary schools at tender ages and poorly prepared, are not likely to be suprised at these retirement eligibility differences (we reap what we have sown, with a vengeance). As far as teacher demand is concerned, however, in the case of neither group, elementary or secondary, can there be much relief through retirement before the mid-1990's at the best in the case of the latter and the early 2000's in the case of the former. There are some tough years to "sweat out," therefore, during the next quarter-century before the "bulge" of teachers needed to satisfy the demands of the children of the Baby Boom works its way out of the school system. What we will have, in a very real sense in terms of pupils and of teachers, is a sort of double boom followed by a double burst, unless a very high proportion of the existing teaching force is declared surplus or redundant during the intervening years. Almost a case of "heads, all lose; tails, no one wins."

Employment of Teacher Graduates in Recent Years

Let us turn now from the existing teaching force to look in a critical fashion at the supply of and demand for teacher graduates, beginning with the little we have been able to glean to date about those who have graduated since 1970 but have been unable to secure, or to hold, teaching jobs in publicly-supported school systems. All our attempts to trace these individuals have encountered the greatest

TABLE 6.26

ESTIMATED PERIOD OF RETIREMENT OF SECONDARY SCHOOL TEACHERS IN ONTARIO
AT AGE 65, BY SEX AND PERCENT OF TOTAL TEACHING FORCE IN 1976-77

| YEARS | MALE | | FEMALE | | TOTAL | |
|---------|------------|-----------------------|------------|-----------------------|------------|-----------------------|
| | Percentage | Cumulative Percentage | Percentage | Cumulative Percentage | Percentage | Cumulative Percentage |
| 1976-80 | 1.3 | 1.3 | 1.9 | 1.9 | 1.5 | 1.5 |
| 1981-85 | 3.9 | 5.2 | 4.5 | 6.4 | 4.0 | 5.5 |
| 1986-90 | 7.6 | 12.8 | 6.7 | 13.1 | 7.4 | 12.9 |
| 1991-95 | 10.3 | 23.1 | 8.3 | 21.4 | 9.7 | 22.6 |
| 1996-00 | 14.1 | 37.2 | 8.5 | 29.9 | 12.5 | 35.1 |
| 2001-05 | 20.6 | 57.8 | 11.2 | 41.1 | 17.8 | 52.9 |
| 2006-10 | 24.5 | 82.3 | 20.3 | 61.4 | 23.2 | 76.1 |

Source: Annual computer files maintained by the OSSTF.

TABLE 6.27

ESTIMATED PERIOD OF RETIREMENT OF SECONDARY SCHOOL TEACHERS IN ONTARIO
AT AGE 65, OR ON THE BASIS OF AGE PLUS EXPERIENCE EQUALS 90, WHICHEVER
COMES FIRST, BY SEX AND PERCENT OF TOTAL TEACHING FORCE IN 1976-77

| YEARS | MALE | | FEMALE | | TOTAL | |
|---------|------------|-----------------------|------------|-----------------------|------------|-----------------------|
| | Percentage | Cumulative Percentage | Percentage | Cumulative Percentage | Percentage | Cumulative Percentage |
| 1976-80 | 3.0 | 3.0 | 3.2 | 3.2 | 3.0 | 3.0 |
| 1981-85 | 5.7 | 8.7 | 5.3 | 8.5 | 5.7 | 8.7 |
| 1986-90 | 11.3 | 20.0 | 8.5 | 17.0 | 10.4 | 19.1 |
| 1991-95 | 19.5 | 39.5 | 11.7 | 28.7 | 17.2 | 36.3 |
| 1996-00 | 28.3 | 67.8 | 18.2 | 46.9 | 25.3 | 61.6 |
| 1901-05 | 24.3 | 92.1 | 33.5 | 81.4 | 27.4 | 85.0 |
| 2006-10 | 7.9 | 100.0 | 18.5 | 99.9 | 10.9 | 99.9 |

Source: Annual computer files maintained by the OSSTF.

difficulty, from sheer bureaucratic red tape as a roadblock to what seems to be incredibly poor records at the teacher training institutions. I hasten to add that the staffs at the institutions were very eager to help, on a research contract basis, but there isn't much one can do with incomplete sets of records. Most institutions seemed content to close all files once the student received his parchment or was failed. A few institutions had on their own been attempting longitudinal studies of their graduates, in a limited fashion owing to very severely restricted budgets. The attitude is one that, quite frankly, I simply fail to comprehend and refuse to accept as a responsible one. The authorities of these institutions should make certain that they know the fate of their graduates, as well as the reasons for their success or failure, once the ivy-covered walls have been left behind, even if for no reason other than to improve the program offered and hence do much to ensure the survival of their own institutions. Of particular importance at this juncture would be detailed knowledge of alternative types of employment, and whether suitable or not, of those who graduated but failed to secure regular teaching positions.

We lack some of the "bench mark" data so badly needed now, but we know that many of the students being educated as teachers find out before the end of the year that teaching as a lifelong career simply isn't "their particular cup of tea" and, even though they graduate successfully, never do intend to teach or even to apply for a job as a teacher. A very much larger group decide, after a year or at most two in the classrooms, that they can't stand the "heat of the kitchen" and have to move out to a "cooler" climate. (See Tables 6.28 to 6.30.) The Tables show that even less than a decade ago, although there has been a very marked change recently, about half of those who entered the teacher education courses, starry-eyed with idealism and buoyed by ignorance of themselves and of real classroom conditions, never make the grade past the second year of teaching, which makes teacher education a pretty expensive training process to the taxpayer and to the aspiring teacher-novice. Above all it can produce an

TABLE 6.28
MALE NEW HIRINGS IN SEPTEMBER OF EACH YEAR AND ATTRITION TO 1976-1977

| YEAR | STOCK | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | STILL EMPLOYED |
|------|-------|------|------|------|------|------|------|------|------|------|------|----------------|
| 1966 | 2,722 | 367 | 207 | 174 | 96 | 85 | 48 | 48 | 38 | 39 | 41 | 1,579 |
| | 100.0 | 13.5 | 7.6 | 6.4 | 3.5 | 3.1 | 1.8 | 1.8 | 1.4 | 1.4 | 1.5 | 58.0 |
| 1967 | 3,027 | 427 | 427 | 247 | 148 | 123 | 60 | 55 | 59 | 43 | 55 | 1,810 |
| | 100.0 | 14.1 | 14.1 | 8.2 | 4.9 | 4.1 | 2.0 | 1.8 | 1.9 | 1.4 | 1.8 | 59.8 |
| 1968 | 2,908 | | | 380 | 244 | 144 | 79 | 64 | 67 | 56 | 54 | 1,820 |
| | 100.0 | | | 13.1 | 8.4 | 5.0 | 2.7 | 2.2 | 2.3 | 1.9 | 1.9 | 62.6 |
| 1969 | 2,764 | | | | 504 | 308 | 115 | 100 | 73 | 60 | 65 | 1,539 |
| | 100.0 | | | | 18.2 | 11.1 | 4.2 | 3.6 | 2.6 | 2.2 | 2.4 | 55.7 |
| 1970 | 1,947 | | | | | 507 | 100 | 81 | 54 | 58 | 45 | 1,102 |
| | 100.0 | | | | | 26.0 | 5.1 | 4.2 | 2.8 | 3.0 | 2.3 | 56.6 |
| 1971 | 1,608 | | | | | | 167 | 126 | 97 | 50 | 47 | 1,121 |
| | 100.0 | | | | | | 10.4 | 7.8 | 6.0 | 3.1 | 2.9 | 69.7 |
| 1972 | 1,185 | | | | | | | 146 | 73 | 55 | 51 | 860 |
| | 100.0 | | | | | | | 12.3 | 6.2 | 4.6 | 4.3 | 72.6 |
| 1973 | 912 | | | | | | | | 102 | 53 | 38 | 719 |
| | 100.0 | | | | | | | | 11.2 | 5.8 | 4.2 | 78.8 |
| 1974 | 1,092 | | | | | | | | | 124 | 96 | 872 |
| | 100.0 | | | | | | | | | 11.4 | 8.8 | 79.9 |
| 1975 | 1,208 | | | | | | | | | | 199 | 1,009 |
| | 100.0 | | | | | | | | | | 16.5 | 83.5 |
| 1976 | 1,144 | | | | | | | | | | | 1,144 |
| | 100.0 | | | | | | | | | | | 100.0 |

Source: Annual computer files maintained by the OSSIF.

TABLE 6.29
FEMALE NEW HIRINGS IN SEPTEMBER OF EACH YEAR AND ATTRITION TO 1976-1977

| YEAR | STOCK | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | STILL EMPLOYED |
|------|-------|------|------|------|------|------|------|------|------|------|------|----------------|
| 1966 | 2,015 | 548 | 357 | 271 | 123 | 100 | 61 | 53 | 41 | 26 | 36 | 399 |
| | 100.0 | 27.2 | 17.7 | 13.4 | 6.1 | 5.0 | 3.0 | 2.6 | 2.0 | 1.3 | 1.8 | 19.8 |
| 1967 | 2,135 | 625 | 398 | 194 | 139 | 139 | 77 | 82 | 65 | 35 | 55 | 465 |
| | 100.0 | 29.3 | 18.6 | 9.1 | 6.5 | 6.5 | 3.6 | 3.8 | 3.0 | 1.6 | 2.6 | 21.8 |
| 1968 | 2,000 | 615 | 292 | 201 | 133 | 133 | 133 | 119 | 67 | 56 | 44 | 473 |
| | 100.0 | 30.7 | 14.6 | 10.0 | 6.6 | 6.6 | 6.6 | 5.9 | 3.3 | 2.8 | 2.2 | 23.6 |
| 1969 | 1,961 | 610 | 317 | 154 | 144 | 144 | 144 | 144 | 88 | 70 | 59 | 519 |
| | 100.0 | 31.1 | 16.2 | 12.4 | 7.9 | 7.9 | 7.9 | 7.3 | 4.5 | 3.6 | 3.0 | 26.5 |
| 1970 | 1,681 | 525 | 208 | 148 | 113 | 113 | 113 | 113 | 84 | 84 | 84 | 526 |
| | 100.0 | 31.2 | 12.4 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 6.7 | 4.6 | 5.0 | 31.3 |
| 1971 | 1,378 | 278 | 200 | 146 | 120 | 120 | 120 | 120 | 103 | 103 | 103 | 531 |
| | 100.0 | 20.2 | 14.5 | 10.6 | 8.7 | 8.7 | 8.7 | 8.7 | 7.5 | 7.5 | 7.5 | 38.5 |
| 1972 | 1,038 | 183 | 159 | 129 | 96 | 96 | 96 | 96 | 129 | 129 | 96 | 471 |
| | 100.0 | 17.6 | 15.3 | 12.4 | 9.2 | 9.2 | 9.2 | 9.2 | 14.8 | 14.8 | 11.5 | 45.4 |
| 1973 | 775 | 145 | 145 | 145 | 145 | 145 | 145 | 145 | 145 | 145 | 89 | 426 |
| | 100.0 | 18.7 | 18.7 | 18.7 | 18.7 | 18.7 | 18.7 | 18.7 | 18.7 | 18.7 | 11.5 | 55.0 |
| 1974 | 1,002 | 222 | 222 | 222 | 222 | 222 | 222 | 222 | 222 | 222 | 150 | 630 |
| | 100.0 | 22.2 | 22.2 | 22.2 | 22.2 | 22.2 | 22.2 | 22.2 | 22.2 | 22.2 | 15.0 | 62.9 |
| 1975 | 1,076 | 251 | 251 | 251 | 251 | 251 | 251 | 251 | 251 | 251 | 251 | 825 |
| | 100.0 | 23.3 | 23.3 | 23.3 | 23.3 | 23.3 | 23.3 | 23.3 | 23.3 | 23.3 | 23.3 | 76.7 |
| 1976 | 1,013 | | | | | | | | | | | 1,013 |
| | 100.0 | | | | | | | | | | | |

Source: Annual computer files maintained by the OSSTF.

TABLE 6.30

TOTAL NEW HIRINGS IN SEPTEMBER OF EACH YEAR AND ATTRITION TO 1976 - 1977

| YEAR | STOCK | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | STILL EMPLOYED |
|------|-------|------|-------|------|-------|-------|------|------|------|------|------|----------------|
| 1966 | 4,737 | 915 | 564 | 445 | 219 | 185 | 109 | 101 | 79 | 65 | 77 | 1,978 |
| | 100.0 | 19.3 | 11.9 | 9.4 | 4.6 | 3.9 | 2.3 | 2.1 | 1.7 | 1.4 | 1.6 | 41.8 |
| 1967 | 5,162 | | 1,052 | 645 | 342 | 262 | 137 | 137 | 124 | 78 | 110 | 2,275 |
| | 100.0 | | 20.4 | 12.5 | 6.6 | 5.1 | 2.7 | 2.7 | 2.4 | 1.5 | 2.1 | 44.1 |
| 1968 | 4,908 | | | 995 | 536 | 345 | 212 | 183 | 134 | 112 | 98 | 2,293 |
| | 100.0 | | | 20.3 | 10.9 | 7.0 | 4.3 | 3.7 | 2.7 | 2.3 | 2.0 | 46.7 |
| 1969 | 4,725 | | | | 1,114 | 625 | 269 | 244 | 161 | 130 | 124 | 2,058 |
| | 100.0 | | | | 23.6 | 13.2 | 5.7 | 5.2 | 3.4 | 2.8 | 2.6 | 43.6 |
| 1970 | 3,628 | | | | | 1,032 | 308 | 229 | 167 | 135 | 129 | 1,628 |
| | 100.0 | | | | | 28.4 | 8.5 | 6.3 | 4.6 | 3.7 | 3.6 | 44.9 |
| 1971 | 2,986 | | | | | | 445 | 326 | 243 | 170 | 150 | 1,652 |
| | 100.0 | | | | | | 14.9 | 10.9 | 8.1 | 5.7 | 5.0 | 55.3 |
| 1972 | 2,223 | | | | | | | 329 | 232 | 184 | 147 | 1,331 |
| | 100.0 | | | | | | | 14.8 | 10.4 | 8.3 | 6.6 | 59.9 |
| 1973 | 1,687 | | | | | | | | 247 | 168 | 127 | 1,145 |
| | 100.0 | | | | | | | | 14.6 | 10.0 | 7.5 | 67.9 |
| 1974 | 2,094 | | | | | | | | | 346 | 246 | 1,502 |
| | 100.0 | | | | | | | | | 16.5 | 11.7 | 71.7 |
| 1975 | 2,284 | | | | | | | | | | 450 | 1,834 |
| | 100.0 | | | | | | | | | | 19.7 | 80.3 |
| 1976 | 2,157 | | | | | | | | | | | 2,157 |
| | 100.0 | | | | | | | | | | | 100.0 |

Source: Annual computer files maintained by the OSSTF.

unhappy experience for the poor students compelled by law to attend school and take whatever they get in the way of a teacher and of teaching. But in these unfortunate days of declining enrolment the numbers of unhappy persons is swelled by two new and very different types: the redundant teacher, successful and experienced, who wishes to reenter the teaching profession as a first choice; and the eager young new teacher graduate who has his heart set on teaching in the schools but can't get a position (or at least not the type he wants in the geographical location, or even school, he wants). This "pool" of potential teachers is getting larger all the time, but we simply do not know how big it is or what the members are doing (if anything). Did they find jobs for which their professional training was suitable or was an asset, or was it all on expensive waste? Such information is obviously essential if the teacher education program is to widen its scope to cover anything other than the narrow channel of pre-service training of teachers. (More of it, of course, is beginning to be directed towards in-service and professional development, albeit at a pace which is incredibly slow in view of the needs, demands and pressures.) In a subsequent detailed report on teacher supply and demand, we will be examining the career patterns, as far as these are known, of the graduates of each of the teacher training institutions, but at this point a summary of what we know about the graduates for each institution and for the province, for all graduates of 1972 to 1976, may be useful. The graphical representation is given in Charts 6.5 to 6.7, where "inactive" means not employed as a teacher in Ontario as of September, 1976. The figures are given in Table 6.31. Some further information, for other years, of employed and inactive teachers by place of certification, is provided in Tables 6.32 to 6.34. Further, a summary for employed and unemployed secondary school teachers is given in the following seven points for the period 1972-1976.

1. During the period from 1972 through 1976, about 30% of teachers graduates (secondary) in Ontario were inactive.



CHART 6.6

DESTINATION OF SECONDARY SCHOOL TEACHER GRADUATES BY COLLEGE AND UNIVERSITY IN ONTARIO, 1972-1976

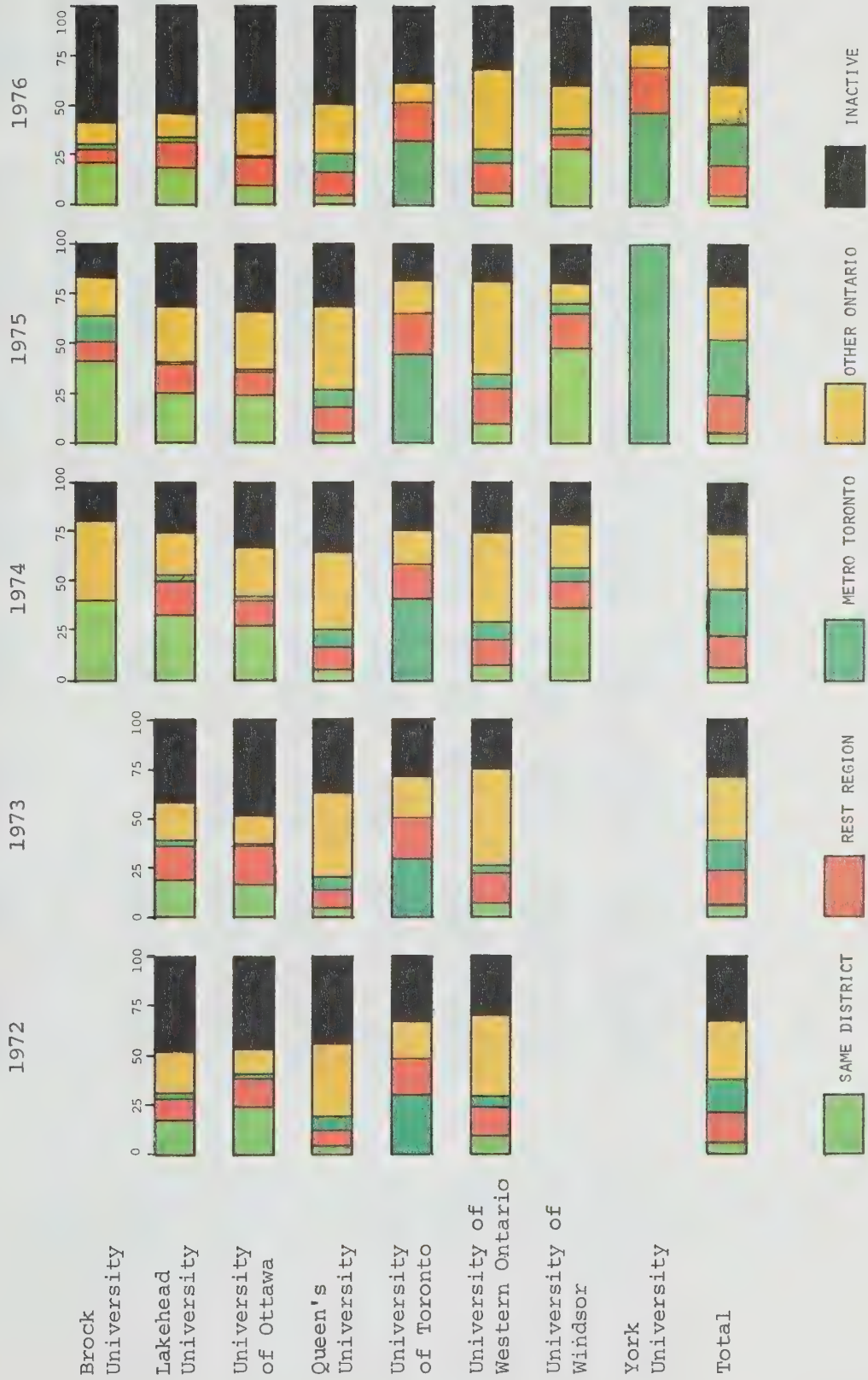


CHART 6.7

DESTINATION OF ELEMENTARY AND SECONDARY SCHOOL TEACHER GRADUATES BY COLLEGE AND UNIVERSITY, 1972-1976

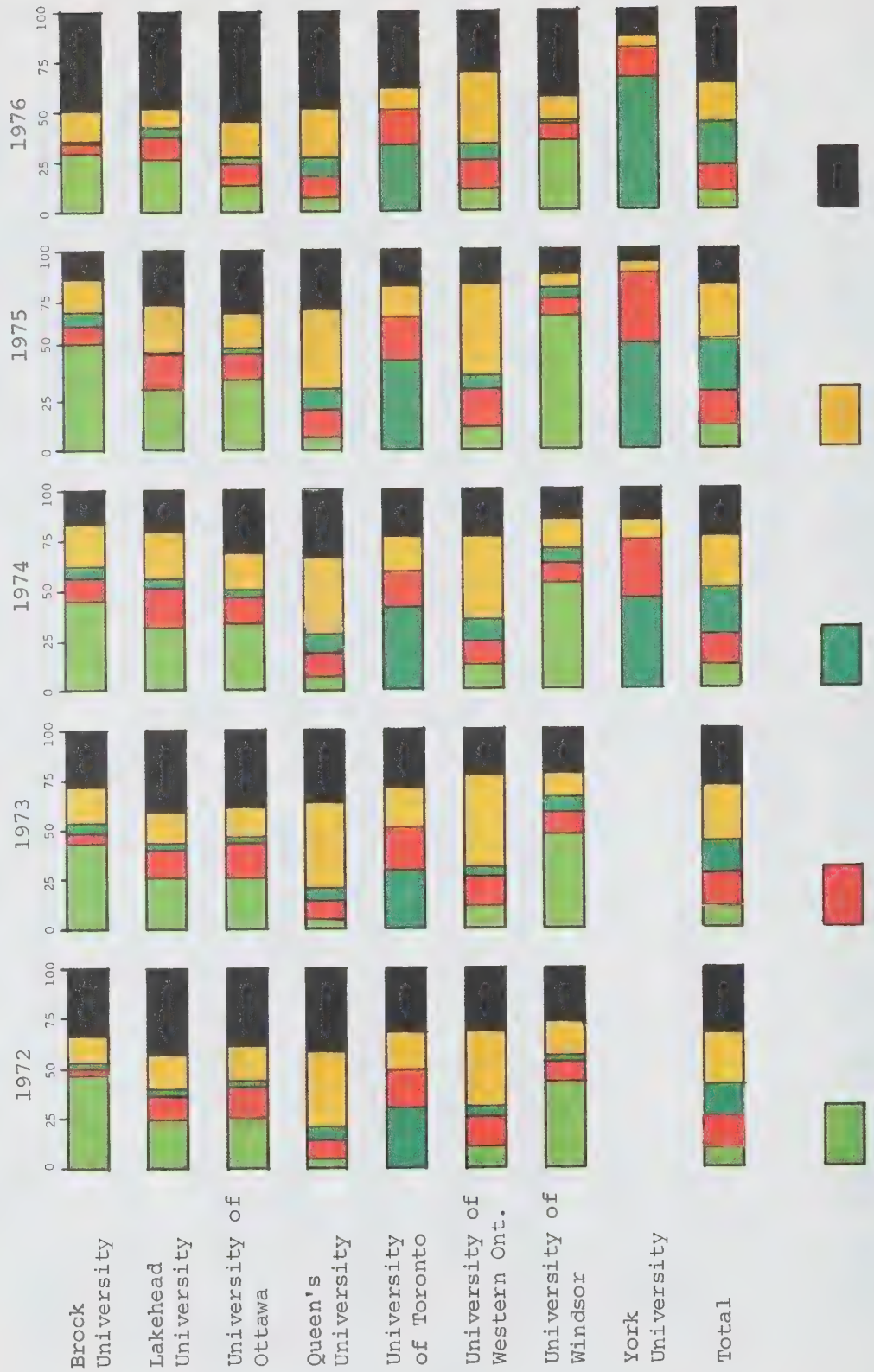


TABLE 6.31

DESTINATION OF ELEMENTARY AND SECONDARY SCHOOL TEACHER GRADUATES BY COLLEGE AND UNIVERSITY IN ONTARIO - 1972-76

| | ELEMENTARY | | | | | | | | | | SECONDARY | | | | | | | | | | TOTAL | | | | | | | | | |
|----------------------------|------------|-------|------|-------|------|-------|------|-------|------|-------|-----------|-------|------|-------|------|-------|------|-------|------|-------|-------|--------|------|--------|------|--------|------|--------|------|--------|
| | 1972 | | 1973 | | 1974 | | 1975 | | 1976 | | 1972 | | 1973 | | 1974 | | 1975 | | 1976 | | 1972 | | 1973 | | 1974 | | 1975 | | 1976 | |
| | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % |
| HAMILTON OTEC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAME DISTRICT | 62 | 16.8 | 73 | 24.8 | 55 | 24.6 | 89 | 31.3 | 141 | 29.6 | | | | | | | | | | | | | | | | | | | | |
| REST REGION | 28 | 7.6 | 20 | 6.8 | 11 | 4.9 | 17 | 6.0 | 16 | 3.4 | | | | | | | | | | | | | | | | | | | | |
| METRO TORONTO | 11 | 3.0 | 16 | 5.4 | 15 | 6.7 | 9 | 3.2 | 8 | 1.7 | | | | | | | | | | | | | | | | | | | | |
| OTHER ONTARIO | 178 | 48.4 | 121 | 41.2 | 106 | 47.3 | 136 | 47.9 | 176 | 36.8 | | | | | | | | | | | | | | | | | | | | |
| INACTIVE | 89 | 24.2 | 64 | 21.8 | 37 | 16.5 | 33 | 11.6 | 136 | 28.5 | | | | | | | | | | | | | | | | | | | | |
| TOTAL | 368 | 100.0 | 294 | 100.0 | 224 | 100.0 | 284 | 100.0 | 477 | 100.0 | | | | | | | | | | | | | | | | | | | | |
| TORONTO OTEC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METRO TORONTO | 487 | 33.5 | 373 | 34.7 | 250 | 51.9 | 298 | 69.3 | 515 | 53.3 | | | | | | | | | | | | | | | | | | | | |
| REST REGION | 322 | 22.1 | 286 | 26.6 | 104 | 21.6 | 56 | 13.0 | 131 | 13.5 | | | | | | | | | | | | | | | | | | | | |
| OTHER ONTARIO | 141 | 9.7 | 120 | 11.2 | 49 | 10.2 | 34 | 7.9 | 49 | 5.1 | | | | | | | | | | | | | | | | | | | | |
| INACTIVE | 504 | 34.7 | 296 | 27.5 | 79 | 16.3 | 42 | 9.8 | 272 | 28.1 | | | | | | | | | | | | | | | | | | | | |
| TOTAL | 1454 | 100.0 | 1075 | 100.0 | 482 | 100.0 | 430 | 100.0 | 967 | 100.0 | | | | | | | | | | | | | | | | | | | | |
| BROCK COLLEGE OF EDUCATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAME DISTRICT | 48 | 45.7 | 79 | 43.2 | 54 | 44.6 | 82 | 54.7 | 79 | 31.3 | 1 | 100.0 | - | - | 2 | 40.0 | 13 | 41.9 | 9 | 21.4 | 49 | 46.23 | 79 | 43.2 | 56 | 44.44 | 95 | 52.49 | 80 | 29.93 |
| REST REGION | 4 | 3.8 | 9 | 4.9 | 14 | 11.6 | 12 | 8.0 | 10 | 4.0 | - | - | - | - | - | - | 3 | 9.7 | 3 | 7.2 | 4 | 3.77 | 9 | 4.9 | 14 | 11.11 | 15 | 8.29 | 13 | 4.42 |
| METRO TORONTO | 4 | 3.8 | 10 | 5.5 | 7 | 5.8 | 8 | 5.3 | 3 | 1.2 | - | - | - | - | - | - | 4 | 12.9 | 1 | 2.4 | 4 | 3.77 | 10 | 5.5 | 7 | 5.56 | 12 | 6.63 | 4 | 1.36 |
| OTHER ONTARIO | 14 | 13.3 | 32 | 17.5 | 24 | 19.8 | 26 | 17.3 | 41 | 16.3 | - | - | - | - | 2 | 40.0 | 6 | 19.4 | 4 | 9.5 | 14 | 13.21 | 32 | 17.5 | 26 | 20.63 | 32 | 17.68 | 45 | 15.31 |
| INACTIVE | 35 | 33.4 | 53 | 28.9 | 22 | 18.2 | 22 | 14.7 | 119 | 47.2 | - | - | - | - | 1 | 20.0 | 5 | 16.1 | 25 | 59.5 | 35 | 33.02 | 53 | 28.9 | 23 | 18.25 | 27 | 14.92 | 144 | 48.98 |
| TOTAL | 105 | 100.0 | 183 | 100.0 | 121 | 100.0 | 150 | 100.0 | 252 | 100.0 | 1 | 100.0 | - | - | 5 | 100.0 | 31 | 100.0 | 42 | 100.0 | 106 | 100.00 | 183 | 100.0 | 126 | 100.00 | 181 | 100.00 | 294 | 100.00 |
| LAKEHEAD UNIVERSITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAME DISTRICT | 34 | 31.8 | 29 | 31.5 | 10 | 27.0 | 14 | 37.9 | 22 | 42.3 | 23 | 17.8 | 15 | 19.7 | 28 | 33.3 | 18 | 24.7 | 22 | 18.8 | 57 | 24.15 | 44 | 26.19 | 38 | 21.40 | 32 | 29.09 | 44 | 26.04 |
| REST REGION | 16 | 15.0 | 10 | 10.9 | 8 | 21.6 | 4 | 10.8 | 4 | 7.7 | 15 | 11.6 | 13 | 17.1 | 15 | 17.9 | 11 | 15.1 | 14 | 12.0 | 31 | 13.14 | 23 | 13.69 | 23 | 19.01 | 15 | 13.64 | 18 | 10.65 |
| METRO TORONTO | 4 | 3.7 | 4 | 4.3 | 4 | 10.8 | 1 | 2.7 | 3 | 5.8 | 5 | 3.9 | 2 | 2.6 | 3 | 3.6 | 1 | 1.4 | 4 | 3.4 | 9 | 3.81 | 6 | 3.57 | 7 | 5.79 | 2 | 1.82 | 7 | 4.14 |
| OTHER ONTARIO | 14 | 13.1 | 12 | 13.1 | 11 | 29.8 | 9 | 24.3 | 3 | 5.8 | 27 | 20.9 | 14 | 18.4 | 17 | 20.2 | 20 | 27.3 | 14 | 12.0 | 41 | 17.37 | 26 | 15.48 | 28 | 23.14 | 29 | 26.36 | 17 | 10.06 |
| INACTIVE | 39 | 36.4 | 37 | 40.2 | 4 | 10.8 | 9 | 24.3 | 20 | 38.4 | 59 | 45.8 | 32 | 42.2 | 21 | 25.0 | 23 | 31.5 | 63 | 53.8 | 98 | 41.53 | 69 | 41.07 | 25 | 20.66 | 32 | 29.09 | 83 | 49.11 |
| TOTAL | 107 | 100.0 | 92 | 100.0 | 37 | 100.0 | 37 | 100.0 | 52 | 100.0 | 129 | 100.0 | 76 | 100.0 | 84 | 100.0 | 73 | 100.0 | 117 | 100.0 | 236 | 100.00 | 168 | 100.00 | 121 | 100.00 | 110 | 100.00 | 169 | 100.00 |
| LAURENTIAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAME DISTRICT | 35 | 20.5 | 13 | 19.7 | 12 | 20.7 | 27 | 34.6 | 20 | 20.4 | | | | | | | | | | | | | | | | | | | | |
| REST REGION | 5 | 2.9 | 5 | 7.6 | 3 | 5.2 | 7 | 9.0 | 11 | 11.2 | | | | | | | | | | | | | | | | | | | | |
| METRO TORONTO | 5 | 2.9 | 5 | 7.6 | 1 | 1.7 | 1 | 1.3 | 3 | 3.1 | | | | | | | | | | | | | | | | | | | | |
| OTHER ONTARIO | 76 | 44.4 | 28 | 42.4 | 28 | 48.3 | 36 | 46.1 | 37 | 37.8 | | | | | | | | | | | | | | | | | | | | |
| INACTIVE | 50 | 29.9 | 15 | 22.7 | 14 | 24.1 | 7 | 9.0 | 27 | 27.5 | | | | | | | | | | | | | | | | | | | | |
| TOTAL | 171 | 100.0 | 66 | 100.0 | 58 | 100.0 | 78 | 100.0 | 98 | 100.0 | | | | | | | | | | | | | | | | | | | | |
| NIPISSING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAME DISTRICT | 10 | 7.2 | 17 | 13.7 | 5 | 10.2 | 8 | 9.1 | 9 | 7.4 | | | | | | | | | | | | | | | | | | | | |
| REST REGION | 20 | 14.5 | 14 | 11.3 | 4 | 8.2 | 17 | 19.3 | 20 | 16.4 | | | | | | | | | | | | | | | | | | | | |
| METRO TORONTO | 7 | 5.1 | 7 | 5.6 | 1 | 2.0 | 1 | 1.1 | 5 | 4.1 | | | | | | | | | | | | | | | | | | | | |
| OTHER ONTARIO | 67 | 48.6 | 56 | 45.2 | 29 | 59.2 | 46 | 52.3 | 56 | 45.9 | | | | | | | | | | | | | | | | | | | | |
| INACTIVE | 34 | 24.6 | 30 | 24.2 | 10 | 20.4 | 16 | 18.2 | 32 | 26.2 | | | | | | | | | | | | | | | | | | | | |
| TOTAL | 138 | 100.0 | 124 | 100.0 | 49 | 100.0 | 88 | 100.0 | 122 | 100.0 | | | | | | | | | | | | | | | | | | | | |
| UNIVERSITY OF OTTAWA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAME DISTRICT | 107 | 25.4 | 96 | 29.4 | 65 | 34.9 | 97 | 40.9 | 36 | 14.3 | 20 | 24.1 | 18 | 16.2 | 25 | 28.1 | 20 | 24.1 | 10 | 10.3 | 127 | 25.20 | 114 | 26.03 | 90 | 32.73 | 117 | 36.56 | 46 | 13.22 |
| REST REGION | 65 | 15.4 | 51 | 15.6 | 24 | 12.9 | 31 | 13.1 | 26 | 10.4 | 12 | 14.5 | 22 | 19.6 | 11 | 12.4 | 10 | 12.0 | 14 | 14.4 | 77 | 15.28 | 73 | 16.67 | 35 | 12.73 | 41 | 12.81 | 40 | 11.49 |
| METRO TORONTO | 12 | 2.9 | 9 | 2.8 | 5 | 2.7 | 7 | 3.0 | 8 | 3.2 | 2 | 2.4 | 1 | 1.1 | 1 | 1.1 | 1 | 1.2 | 1 | 1.0 | 14 | 2.78 | 10 | 2.28 | 6 | 2.18 | 8 | 2.50 | 9 | 2.59 |
| OTHER ONTARIO | 76 | 18.1 | 58 | 17.7 | 24 | 18.3 | 33 | 13.9 | 39 | 15.5 | 10 | 12.0 | 14 | 12.6 | 23 | 25.8 | 24 | 28.9 | 20 | 20.6 | 86 | 17.06 | 72 | 16.44 | 57 | 20.73 | 57 | 17.81 | 59 | 16.95 |
| INACTIVE | 161 | 38.2 | 113 | 34.5 | 58 | 31.2 | 69 | 29.1 | 142 | 56.6 | 39 | 47.0 | 56 | 50.5 | 29 | 32.6 | 28 | 33.8 | 52 | 53.7 | 200 | 39.68 | 169 | 38.58 | 87 | 31.64 | 97 | 30.33 | 194 | 55.75 |
| TOTAL | 421 | 100.0 | 327 | 100.0 | 186 | 100.0 | 237 | 100.0 | 251 | 100.0 | 83 | 100.0 | 111 | 100.0 | 89 | 100.0 | 83 | 101.0 | 97 | 100.0 | 504 | 100.00 | 438 | 100.00 | 275 | 100.00 | 320 | 100.00 | 348 | 100.00 |
| QUEENS UNIVERSITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAME DISTRICT | - | - | - | - | 8 | 8.2 | 18 | 16.1 | 19 | 13.7 | 49 | 4.3 | 31 | 4.7 | 34 | 6.2 | 31 | 5.5 | 26 | 4.3 | 25 | 4.3 | 31 | 4.7 | 42 | 6.54 | 49 | 7.22 | 45 | 6.01 |
| REST REGION | - | - | 1 | 100.0 | 14 | 14.5 | 13 | 11.6 | 12 | 8.6 | 59 | 8.3 | 59 | 9.0 | 58 | 10.6 | 77 | 13.6 | 70 | 11.5 | 49 | 8.3 | 60 | 9.16 | 72 | 11.21 | 90 | 13.25 | 82 | 10.95 |
| METRO TORONTO | - | - | - | - | 8 | 8.2 | 18 | 16.1 | 19 | 13.7 | 46 | 7.8 | 39 | 6.0 | 49 | 9.0 | 53 | 9.3 | 53 | 8.7 | 46 | 7.8 | 39 | 5.95 | 57 | 8.88 | 71 | 10.46 | 72 | 9.61 |
| OTHER ONTARIO | - | - | - | - | 28 | 28.9 | 34 | 30.4 | 32 | 23.0 | 217 | 36.9 | 282 | 43.1 | 211 | 38.7 | 235 | 41.4 | 158 | 25.9 | 217 | 36.9 | 282 | 43.05 | 239 | 37.22 | 268 | 39.62 | 190 | 25.37 |
| INACTIVE | - | - | - | - | 39 | 40.2 | 29 | 25.8 | 57 | 41.0 | 251 | 42.7 | 243 | 37.2 | 193 | 35.5 | 171 | 30.2 | 303 | 49.6 | 251 | 42.7 | 243 | 37.10 | 232 | 36.14 | 200 | 29.48 | 360 | 48.06 |
| TOTAL | - | - | 1 | 100.0 | 97 | 100.0 | 112 | 100.0 | 139 | 100.0 | 588 | 100.0 | 654 | 100.0 | 545 | 100.0 | 567 | 100.0 | 610 | 100.0 | 588 | 100.00 | 655 | 100.00 | 642 | 100.00 | 679 | 100.00 | 749 | 100.00 |
| UNIVERSITY OF TORONTO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METRO TORONTO | 1 | 25.0 | 3 | 20.0 | 7 | 70.0 | 6 | 33.3 | 19 | 35.2 | 375 | 30.3 | 376 | 28.7 | 533 | 40.7 | 752 | 45.2 | 582 | 33.5 | | | | | | | | | | |

TABLE 6.32

PERSONS QUALIFIED AS ELEMENTARY AND SECONDARY SCHOOL TEACHERS IN ONTARIO BY PLACE AND PERIOD OF THEIR FIRST TEACHER CERTIFICATION, WHO ARE NOT TEACHING IN ONTARIO ELEMENTARY AND SECONDARY SCHOOLS, 1976-77

| PLACE OF FIRST CERTIFICATION | PERIOD | | | | | | | | | | | |
|---------------------------------|-----------|-------|--------|-----------|-------|--------|-----------|-------|--------|-----------|-------|--------|
| | 1929-1961 | | | 1962-1966 | | | 1967-1971 | | | 1972-1976 | | |
| | No. | Per.* | Org.** | No. | Per.* | Org.** | No. | Per.* | Org.** | No. | Per.* | Org.** |
| Ontario | 38,383 | 43.5 | 89.8 | 17,344 | 19.7 | 85.4 | 23,462 | 26.6 | 76.3 | 8,984 | 10.2 | 72.5 |
| Quebec | 695 | 26.4 | 1.6 | 314 | 11.9 | 1.5 | 1,093 | 41.5 | 3.6 | 528 | 20.1 | 4.3 |
| Rest of Canada | 1,820 | 28.9 | 4.3 | 1,356 | 21.5 | 6.7 | 1,988 | 31.6 | 6.5 | 1,135 | 18.0 | 9.2 |
| U.S.A. | 368 | 19.9 | 0.9 | 143 | 7.7 | 0.7 | 652 | 35.2 | 2.1 | 688 | 37.2 | 5.5 |
| ***United Kingdom | 1,240 | 23.6 | 2.9 | 1,020 | 19.4 | 5.0 | 2,515 | 48.0 | 8.2 | 470 | 9.0 | 3.8 |
| W. Europe | 40 | 12.5 | 0.1 | 23 | 7.2 | 0.1 | 178 | 55.6 | 0.6 | 79 | 24.7 | 0.6 |
| E. Europe | 46 | 22.7 | 0.1 | 4 | 2.0 | - | 86 | 42.4 | 0.3 | 67 | 33.0 | 0.5 |
| S.E. Asia | 56 | 9.2 | 0.1 | 35 | 5.8 | 0.2 | 308 | 50.6 | 1.0 | 209 | 34.4 | 1.7 |
| Rest of Asia | 32 | 15.9 | 0.1 | 2 | 1.0 | - | 95 | 47.3 | 0.3 | 72 | 35.8 | 0.6 |
| Africa | 13 | 10.3 | - | 6 | 4.8 | - | 53 | 42.1 | 0.2 | 54 | 42.8 | 0.4 |
| W. Indies | 44 | 11.2 | 0.1 | 54 | 13.8 | 0.3 | 231 | 58.9 | 0.8 | 63 | 16.1 | 0.5 |
| S. & C. America | 24 | 25.0 | 0.1 | 3 | 3.1 | - | 30 | 31.3 | 0.1 | 39 | 40.6 | 0.3 |
| Total | 42,761 | 40.3 | 100.0 | 20,304 | 19.1 | 100.0 | 30,691 | 28.9 | 100.0 | 12,388 | 11.7 | 100.0 |

*Period (horizontal %)

**Origin (vertical %)

***Also includes Australia, New Zealand, Southern Rhodesia, South Africa and Eire.

Source: Teacher Information File - Ministry of Education.

PERSONS QUALIFIED AS ELEMENTARY SCHOOL TEACHERS IN ONTARIO BY PLACE AND PERIOD OF THEIR FIRST TEACHER CERTIFICATION WHO ARE TEACHING IN ONTARIO ELEMENTARY SCHOOLS, 1976-77

Source: Teacher Information file - Ministry of Education.

TABLE 6.34

PERSONS QUALIFIED AS SECONDARY SCHOOL TEACHERS BY PLACE AND PERIOD OF THEIR FIRST
TEACHER CERTIFICATION, WHO ARE TEACHING IN ONTARIO SECONDARY SCHOOLS,
1976-77

| PLACE OF FIRST CERTIFICATION | PERIOD | | | | | | | | | | | |
|---------------------------------|-----------|-------|--------|-----------|-------|-------|-----------|-------|--------|-----------|-------|--------|
| | 1929-1961 | | | 1962-1966 | | | 1967-1971 | | | 1972-1976 | | |
| | No. | Per.* | Org.** | No. | Per.* | Org.* | No. | Per.* | Org.** | No. | Per.* | Org.** |
| Ontario | 7,898 | 23.2 | 95.5 | 8,337 | 24.5 | 96.9 | 10,638 | 31.3 | 90.7 | 7,164 | 21.0 | 92.9 |
| Quebec | 34 | 11.0 | 0.4 | 20 | 6.5 | 0.2 | 157 | 50.8 | 1.3 | 98 | 31.7 | 1.3 |
| Rest of Canada | 142 | 20.8 | 1.7 | 128 | 18.7 | 1.5 | 246 | 36.0 | 2.1 | 167 | 24.5 | 2.2 |
| U.S.A. | 6 | 1.9 | 0.1 | 5 | 1.6 | 0.1 | 158 | 51.1 | 1.3 | 140 | 45.3 | 1.8 |
| ***United Kingdom | 180 | 24.1 | 2.2 | 87 | 11.6 | 1.0 | 394 | 52.7 | 3.4 | 86 | 11.5 | 1.1 |
| W. Europe | 2 | 9.1 | 0.0 | 0 | 0.0 | 0.0 | 10 | 45.5 | 0.1 | 10 | 45.5 | 0.1 |
| E. Europe | 1 | 2.3 | 0.0 | 1 | 2.3 | 0.0 | 34 | 77.3 | 0.3 | 8 | 18.2 | 0.1 |
| S.E. Asia | 5 | 10.9 | 0.1 | 6 | 13.0 | 0.1 | 25 | 54.3 | 0.2 | 10 | 21.7 | 0.1 |
| Rest of Asia | 0 | 0.0 | 0.0 | 1 | 3.8 | 0.0 | 13 | 50.0 | 0.1 | 12 | 46.2 | 0.2 |
| Africa | 2 | 9.1 | 0.0 | 1 | 4.5 | 0.0 | 16 | 72.7 | 0.1 | 3 | 13.6 | 0.0 |
| W. Indies | 2 | 3.2 | 0.0 | 13 | 21.0 | 0.2 | 37 | 59.7 | 0.3 | 10 | 16.1 | 0.1 |
| S. & C. America | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 1 | 100.0 | 0.0 | 0 | 0.0 | 0.0 |
| Total | 8,272 | 22.8 | 100.0 | 8,599 | 23.7 | 100.0 | 11,729 | 32.3 | 100.0 | 7,708 | 21.2 | 100.0 |
| | | | | | | | | | | | | 100.0 |

Source: Teacher Information file - Ministry of Education.

*Period (horizontal %)

**Origin (vertical %)

***Also includes Australia, New Zealand, Southern Rhodesia, South Africa and Eire.

2. In 1976, the inactive rate for these graduates reached a level as high as 40%. With the exception of 1975, when it dropped to 21%, it has fluctuated in the vicinity of 30%.
3. During the whole period (1972-76), on average, the inactive rates were more than 40% among the graduates with guidance, classics and language, social study, and library. Other categories with inactive rates between 30% and 40% were history, science, arts, and English. On the other hand, the lowest rates, less than 25%, are found for the following categories: music, home economics, commerce and vocation. Physical education, mathematics, chemistry and French & Francais fell in 25% to 30% average categories.
4. In half of the categories (English, history, social study, library, chemistry, science, guidance, physical education, arts and geography) the inactive rates were highest for the year 1976, the latest year of observation. In most of the other categories they were highest in the year 1972, the first year of observation.
5. During the period, on average, the inactive rates were more than 40% among the graduates who had social study as their second subject. Among the other categories with high inactive rates were the graduates of guidance, arts, library and geography as their second subject, varying from 29% to 38%. These rates for the second subject were also above average among the graduates who had one of the following as their second subject, varying from 32% to 35%, english, chemistry, French and Francais, science, and history. The lowest inactive rates were found among the graduates who took as their second subject either music, home economics, or commerce.
6. As was the case in regard to "first subject" categories, in half of the "second subject" categories the inactive rates were highest for the year 1976, the last observation period. Those categories were classics and language, history, social study, library, chemistry, science, guidance, physical education, geography, and other. In most of the other categories viz. English, French and Francais, mathematics, arts, commerce, vocation, home economics and 'none', the rates were highest in 1972.

7. From the observations made in 3,4,5 and 6, it becomes clear that the inactive rates follow the same pattern (both over time and over groups) for the "first subject" and "second subject" categories.

Strangely enough, despite these rather high inactive rates for teachers, enrolments in the teacher education institutions have been rather erratic. The figures for recent years are given in Table 6.35. The teachers-in-training were either unaware of or indifferent to their chances of securing jobs as teachers in this province, or were prepared to undertake the course despite the odds, having, presumably, nothing better to do. The question does arise, and naturally so, whether unrestricted entry to these pre-service teacher education programs should be permitted. I note, for example, that the Minister of Education has just announced a 50% cut in the enrolment intakes to the OTECs. Possibly the faculties of education may have cause to pause and give thought to the implications for pre-service education of teachers in all other teacher training institutions, remembering the action that had to be taken in Great Britain under like circumstances (a drastic cut back by mandate).

I am frustrated and annoyed at my inability to determine the size of the pool of unemployed and inactive ex-teachers and new teacher graduates. In my most pessimistic moments I exclaim in despair that there must be a full five years supply of trained and, for the most part, experienced and proven successful teachers "out there" waiting to be tapped (for jobs in the teaching profession). Being persistent by nature and training, I firmly intend to pursue my search to some sort of reasonable conclusion, even though it may require placing a "mail-in" advertisement in every newspaper in Ontario.

Projections of the Supply and Demand for Teachers in Ontario

The projections to be given now are based on those prepared by OISE for the Ministry of Education in 1977, but updated by one year. Unfortunately, as indicated earlier, we were unable to secure enrolments for 1977-78, for pupils or for teachers-in-training, and the projections

TABLE 6.35

ENROLMENT IN TEACHER EDUCATION INSTITUTIONS IN ONTARIO, 1968-1976

| YEAR OCTOBER 15 | ENROLMENTS | | |
|--------------------|------------|-----------|--------|
| | Elementary | Secondary | Total |
| 1968 | 9,277 | 2,116 | 11,393 |
| 1969 | 7,896 | 2,874 | 10,770 |
| 1970 | 7,571 | 2,766 | 10,337 |
| 1971 | 4,250 | 3,010 | 7,260 |
| 1972 | 3,139 | 3,270 | 6,409 |
| 1973 | 1,780 | 3,036 | 4,814 |
| 1974 | 2,229 | 3,512 | 5,741 |
| 1975 | 3,347 | 3,762 | 7,109 |
| 1976 | 3,311 | 3,639 | 6,950 |

Source: Annual Reports of the Minister of Education.

of population are not yet available to us (nor is the most recent pupil-teacher ratio, or course). Therefore the projections given here must be viewed as first approximations, to be adjusted within a few weeks, projected to the year 2001, and issued in a separate report. I am glad to report, however, that I have just received from The Hansen Group, Management Consultants, a detailed report on the computer model for Teacher Supply and Cost which is now ready for use in preparing projections for the future. Once the basic data on population and school enrolment are available, therefore, we can produce alternative printouts for institutions, regions and the province, providing operating cost data as well as number of teacher-students needed to supply given sets of demands.

Using a rather optimistic assumption in regard to a possible increase in number of live births and a constant pupil-teacher ratio of 23.2 from 1977 to 1986, we obtain the figures shown in Table 6.36 for the number of pupils and teachers in the elementary school system. Based on these values, and estimated numbers for replacements and re-entries, we secure the total demand up to 1986 given in the final column of Table 6.37. Note the quite consistent pattern in the final column of decreasing demand for new teachers, as would be anticipated during a period of declining enrolments. In terms of manpower needs, the entries of the last column show the numbers to be supplied mainly from the training institutions under these rather optimistic assumptions.

Paralleling the process and the tables for the secondary school sector, we show in Table 6.38 the number of actual and projected students and teachers in the secondary schools from 1958 to 1986, with two sets of values for the teachers, one secured by using a pupil-teacher ratio of 17.4 and the other of 17.3. No matter which is used, the teaching force drops back to about the 1967 level, from a high of 35,352 teachers in 1977 to about 29,000 in 1986, or a loss of some 6,300 teachers. Note that the loss for elementary school teachers of Table 6.36 would be approximately 5,200. Pulling all the pieces together in Table 6.39, we obtain the total picture

TABLE 6.36

PUPILS AND TEACHERS IN ONTARIO ELEMENTARY SCHOOLS

| YEAR | NUMBER OF PUPILS (HEADCOUNTS) | FULL-TIME TEACHERS | CRUDE PUPIL- TEACHER RATIO |
|--------|----------------------------------|--------------------|-------------------------------|
| 1958 | 1,027,598 | 33,074 | 31.1 |
| 1959 | 1,081,649 | 35,241 | 30.7 |
| 1960 | 1,126,388 | 36,533 | 30.8 |
| 1961 | 1,163,053 | 38,079 | 30.5 |
| 1962 | 1,197,029 | 39,249 | 30.5 |
| 1963 A | 1,233,164 | 40,875 | 30.2 |
| 1964 C | 1,278,473 | 42,750 | 29.9 |
| 1965 T | 1,320,043 | 44,967 | 29.4 |
| 1966 U | 1,364,871 | 47,647 | 28.6 |
| 1967 A | 1,405,052 | 51,018 | 27.5 |
| 1968 L | 1,430,590 | 54,587 | 26.2 |
| 1969 | 1,456,117 | 57,587 | 25.3 |
| 1970 | 1,465,488 | 59,307 | 24.7 |
| 1971 | 1,456,840 | 58,329 | 25.0 |
| 1972 | 1,445,101 | 57,991 | 24.9 |
| 1973 | 1,422,885 | 56,630 | 25.1 |
| 1974 | 1,404,839 | 56,678 | 24.8 |
| 1975 | 1,389,478 | 58,167 | 23.9 |
| 1976 | 1,360,085 | 57,807 | 23.5 |
| 1977 | 1,328,950 | 57,282 | 23.2 |
| 1978 P | 1,296,214 | 55,871 | 23.2 |
| 1979 R | 1,274,005 | 54,914 | 23.2 |
| 1980 O | 1,259,767 | 54,300 | 23.2 |
| 1981 J | 1,250,217 | 53,889 | 23.2 |
| 1982 E | 1,243,539 | 53,601 | 23.2 |
| 1983 C | 1,236,161 | 53,283 | 23.2 |
| 1984 T | 1,227,724 | 52,919 | 23.2 |
| 1985 E | 1,221,116 | 52,677 | 23.2 |
| 1986 D | 1,220,692 | 52,616 | 23.2 |

Source: Actuals from Annual Reports of the Minister of Education.
Projections by the Department of Education Planning, OISE
on contract with the Ministry of Education.

TABLE 6.37
ACTUAL AND PROJECTED DEMAND FOR ELEMENTARY SCHOOL TEACHERS IN ONTARIO

| YEAR | | STOCK OF TEACHERS | EXPAN. DEMAND OR CONTRACTION | REPLACEMENT DEMAND | | TOTAL DEMAND | RE-ENTRIES TO PROFESSION | | DEMAND FROM OTHER SOURCES ³ |
|------|---|----------------------|------------------------------------|-----------------------|--------------------|-----------------|-----------------------------|--------------------|----------------------------------------------|
| | | No. | No. | No. | % | No. | No. | % | No. |
| 1962 | | 39,249 | +1,170 | 5,118 | 13.44 ¹ | 6,288 | 1,314 | 20.90 ² | 4,974 |
| 1963 | | 40,875 | +1,626 | 5,081 | 12.94 | 6,707 | 1,895 | 28.25 | 4,812 |
| 1964 | A | 42,750 | +1,875 | 5,349 | 13.08 | 7,224 | 2,033 | 28.14 | 5,191 |
| 1965 | C | 44,967 | +2,217 | 5,703 | 13.34 | 7,920 | 1,989 | 25.11 | 5,931 |
| 1966 | T | 47,647 | +2,680 | 6,642 | 14.77 | 9,322 | 2,162 | 23.19 | 7,160 |
| 1967 | U | 51,018 | +3,371 | 7,043 | 14.78 | 10,414 | 2,292 | 22.00 | 8,122 |
| 1968 | A | 54,587 | +3,569 | 7,476 | 14.65 | 11,045 | 2,620 | 23.72 | 8,425 |
| 1969 | L | 57,587 | +3,000 | 8,297 | 15.19 | 11,297 | 2,317 | 20.51 | 8,980 |
| 1970 | | 59,307 | +1,720 | 8,226 | 14.28 | 9,946 | 2,325 | 23.38 | 7,621 |
| 1971 | | 58,329 | - 978 | 7,813 | 13.17 | 6,835 | 1,876 | 27.45 | 4,959 |
| 1972 | | 57,991 | - 338 | 7,417 | 12.72 | 7,079 | 2,176 | 30.74 | 4,903 |
| 1973 | | 56,630 | -1,361 | 7,569 | 13.05 | 6,208 | 1,213 | 19.54 | 4,995 |
| 1974 | | 56,678 | + 48 | 7,375 | 13.02 | 7,423 | 1,742 | 23.47 | 5,681 |
| 1975 | | 58,167 | +1,489 | 7,141 | 12.60 | 8,630 | 2,075 | 24.04 | 6,555 |
| 1976 | | 57,807 | - 360 | 6,697 | 11.51 | 6,337 | 1,391 | 21.95 | 4,946 |
| 1977 | | 57,282 | - 525 | 6,359 | 11.00 | 5,834 | 1,166 | 20.00 | 4,668 |
| 1978 | P | 55,871 | -1,411 | 6,015 | 10.50 | 4,604 | 920 | 20.00 | 3,684 |
| 1979 | R | 54,914 | - 957 | 5,587 | 10.00 | 4,630 | 926 | 20.00 | 3,704 |
| 1980 | O | 54,300 | - 614 | 5,217 | 9.50 | 4,603 | 920 | 20.00 | 3,683 |
| 1981 | J | 53,889 | - 411 | 4,887 | 9.00 | 4,476 | 895 | 20.00 | 3,581 |
| 1982 | E | 53,601 | - 288 | 4,581 | 8.50 | 4,293 | 858 | 20.00 | 3,435 |
| 1983 | C | 53,283 | - 318 | 4,288 | 8.00 | 3,970 | 794 | 20.00 | 3,176 |
| 1984 | T | 52,919 | - 364 | 3,996 | 7.50 | 3,632 | 726 | 20.00 | 2,906 |
| 1985 | E | 52,677 | - 242 | 3,704 | 7.00 | 3,462 | 692 | 20.00 | 2,770 |
| 1986 | D | 52,616 | - 61 | 3,424 | 6.50 | 3,363 | 672 | 20.00 | 2,691 |

¹Percentage of previous year's stock

²Percentage of total demand

³Total demand minus re-entries

Source: Annual Reports of the Ontario Minister of Education (Actuals)

TABLE 6.38

PUPILS AND TEACHERS IN ONTARIO SECONDARY SCHOOLS

| YEAR | PUPILS | TEACHERS | | PUPIL/TEACHER RATIO | |
|--------|---------|----------|--------|------------------------|--------|
| 1958 | 222,075 | 9,573 | | 23.2 | |
| 1959 | 237,576 | 10,464 | | 22.7 | |
| 1960 | 262,775 | 11,478 | | 22.9 | |
| 1961 | 299,177 | 12,850 | | 23.3 | |
| 1962 A | 331,578 | 14,923 | | 22.2 | |
| 1963 C | 364,210 | 17,170 | | 21.2 | |
| 1964 T | 395,301 | 19,205 | | 20.6 | |
| 1965 U | 418,738 | 21,659 | | 19.3 | |
| 1966 A | 436,026 | 24,242 | | 18.0 | |
| 1967 L | 463,736 | 27,164 | | 17.1 | |
| 1968 | 500,807 | 30,203 | | 16.6 | |
| 1969 | 530,679 | 32,342 | | 16.4 | |
| 1970 | 556,913 | 33,693 | | 16.5 | |
| 1971 | 574,520 | 34,469 | | 16.7 | |
| 1972 | 583,013 | 34,549 | | 16.9 | |
| 1973 | 585,725 | 33,889 | | 17.3 | |
| 1974 | 589,650 | 34,231 | | 17.2 | |
| 1975 | 605,160 | 34,826 | | 17.4 | |
| 1976 | 613,055 | 35,352 | | 17.3 | |
| | | Est. 1 | Est. 2 | Est. 1 | Est. 2 |
| 1977 P | 615,232 | 35,323 | 35,562 | 17.4 | 17.3 |
| 1978 R | 613,928 | 35,283 | 35,487 | 17.4 | 17.3 |
| 1979 O | 601,903 | 34,592 | 34,792 | 17.4 | 17.3 |
| 1980 J | 579,416 | 33,300 | 33,492 | 17.4 | 17.3 |
| 1981 E | 552,799 | 31,770 | 31,954 | 17.4 | 17.3 |
| 1982 C | 527,629 | 30,324 | 30,499 | 17.4 | 17.3 |
| 1983 T | 511,302 | 29,385 | 29,555 | 17.4 | 17.3 |
| 1984 E | 506,553 | 29,112 | 29,281 | 17.4 | 17.3 |
| 1985 D | 505,811 | 29,070 | 29,238 | 17.4 | 17.3 |
| 1986 | 502,728 | 28,892 | 29,059 | 17.4 | 17.3 |

Source: Actuals from Annual Reports of the Minister of Education;
Projections by the Department of Educational Planning, OISE
on contract with the Ministry of Education.

TABLE 6.39

ACTUAL AND PROJECTED DEMAND FOR AND SUPPLY OF SECONDARY SCHOOL TEACHERS IN ONTARIO

| YEAR | TEACHER STOCK NO. | DEMAND | | | | SUPPLY | | | | | |
|------|-------------------|---------------|-----------------|-------|-----------|----------------|------|-------|-----------------|-------------------|-----------|
| | | Expansion No. | Replacement No. | % | Total No. | Re-entries No. | % | % | New Hirings No. | From Colleges No. | Other No. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1959 | 10,464 | | | | | | | | | | |
| 1960 | 11,478 | 1,014 | 832 | 7.95 | 1,846 | 192 | 1.67 | 10.40 | 1,654 | 1,152 | 502 |
| 1961 | 12,850 | 1,372 | 898 | 7.82 | 2,270 | 264 | 2.05 | 11.63 | 2,006 | 1,342 | 664 |
| 1962 | 14,923 | 2,073 | 1,118 | 8.70 | 3,191 | 332 | 2.22 | 10.40 | 2,859 | 1,826 | 1,033 |
| 1963 | 17,170 | 2,247 | 1,493 | 10.00 | 3,740 | 354 | 2.06 | 9.47 | 3,386 | 2,273 | 1,113 |
| 1964 | 19,205 | 2,035 | 1,644 | 9.57 | 3,679 | 376 | 1.96 | 10.22 | 3,303 | 2,288 | 1,015 |
| 1965 | 21,659 | 2,454 | 2,050 | 10.67 | 4,504 | 417 | 1.93 | 9.26 | 4,087 | 2,638 | 1,449 |
| 1966 | 24,242 | 2,583 | 2,453 | 11.33 | 5,036 | 442 | 1.82 | 8.78 | 4,594 | 2,696 | 1,898 |
| 1967 | 27,164 | 2,922 | 2,948 | 12.16 | 5,870 | 571 | 2.10 | 9.73 | 5,299 | 3,351 | 1,948 |
| 1968 | 30,203 | 3,039 | 3,101 | 11.42 | 6,140 | 728 | 2.41 | 11.86 | 5,412 | 3,833 | 1,579 |
| 1969 | 32,342 | 2,139 | 3,480 | 11.52 | 5,619 | 757 | 2.34 | 13.47 | 4,862 | 2,455 | 2,407 |
| 1970 | 33,693 | 1,351 | 3,754 | 11.61 | 5,105 | 862 | 2.56 | 16.89 | 4,243 | 2,528 | 1,715 |
| 1971 | 34,469 | 776 | 3,438 | 10.20 | 4,214 | 847 | 2.46 | 20.10 | 3,367 | 2,388 | 979 |
| 1972 | 34,549 | 80 | 3,273 | 9.50 | 3,353 | 654 | 1.89 | 19.50 | 2,699 | 1,838 | 861 |
| 1973 | 33,889 | - 660 | 2,960 | 8.57 | 2,300 | 341 | 1.01 | 14.83 | 1,959 | 1,263 | 696 |
| 1974 | 34,231 | + 342 | 2,781 | 8.21 | 3,123 | 493 | 1.44 | 15.79 | 2,630 | 1,551 | 1,079 |
| 1975 | 34,826 | 595 | 2,555 | 7.46 | 3,150 | 537 | 1.54 | 17.05 | 2,613 | 1,474 | 1,139 |
| 1976 | 35,352 | 526 | 2,325 | 6.68 | 2,851 | 434 | 1.23 | 15.22 | 2,417 | 1,435 | 982 |
| 1977 | 35,323 | - 29 | 2,121 | 6.00 | 2,092 | 303 | 0.86 | 14.50 | 1,789 | 1,067 | 723 |
| 1978 | 35,283 | - 40 | 1,943 | 5.50 | 1,903 | 238 | 0.67 | 12.50 | 1,665 | 971 | 695 |
| 1979 | 34,592 | - 691 | 1,764 | 5.00 | 1,073 | 113 | 0.33 | 10.50 | 960 | 548 | 434 |
| 1980 | 33,300 | -1,292 | 1,730 | 5.00 | 438 | 44 | 0.13 | 10.00 | 394 | 223 | 210 |
| 1981 | 31,770 | -1,530 | 1,665 | 5.00 | 135 | 14 | 0.04 | 10.00 | 121 | 69 | 98 |
| 1982 | 30,324 | -1,446 | 1,589 | 5.00 | 143 | 14 | 0.05 | 10.00 | 129 | 73 | 100 |
| 1983 | 29,385 | - 939 | 1,516 | 5.00 | 577 | 58 | 0.20 | 10.00 | 519 | 295 | 254 |
| 1984 | 29,112 | - 273 | 1,469 | 5.00 | 1,196 | 120 | 0.41 | 10.00 | 1,076 | 610 | 474 |
| 1985 | 29,070 | - 42 | 1,456 | 5.00 | 1,414 | 141 | 0.49 | 10.00 | 1,273 | 721 | 553 |
| 1986 | 28,892 | - 178 | 1,454 | 5.00 | 1,276 | 128 | 0.44 | 10.00 | 1,148 | 651 | 502 |

Note: Col. 5 = Col. 4 as % of previous year Col. 2
Col. 4 = Total withdrawals
Col. 10 = Total acquisitions minus qualified teachers re-entering profession
Col. 11 = Graduates from Ontario teacher education programs plus those holding temporary secondary school certificates
Col. 7 = Qualified teachers re-entering who were not employed as teachers in Ontario last year
Col. 8 = Col. 7 as a % of Col. 2
Col. 9 = Col. 7 as a % of Col. 6
Col. 12 = Total acquisition minus Col. 7 and Col. 11

Source: Annual Reports of the Ontario Minister of Education (Actuals)

of estimated demand for and supply of secondary school teachers in Ontario. While I may feel that the figures for the teacher stock may be overly optimistic, yet I must admit that the supply required from the colleges does seem reasonable enough in light of our present knowledge. The number of re-entres (Column 7), by the way, has been arbitrarily fixed at 10% from 1980 onwards and the number from the colleges (Column 11) was set at about 51% of total demand (Column 6). The new hirings are calculated on the differences between Column 6 and 7, so that Column 12, "other", is a residual. It would be quite possible to argue, and plausibly, that one should not fix such a quota for the colleges but rather allow the other sources to be determined first and let the supply from the colleges become the residual, the "supplier of last resort", so to speak.

Either way one plays, it is a gamble, and only in the elementary sector is the supply from the teacher training centres likely to remain reasonably high for the next decade or so. When the new figures become available, and we can revise these projections and extend them to the year 2001, I will feel in a position to comment on the steps which must be taken in regard to the supply of teachers from the training institutions. That changes will have to be made seems evident, in programs from pre-service to in-service, for example, or it seems painfully self-evident, new employers must be found for the teacher graduates (of the current as well as of past years).

I anticipate that the representations from the teacher training institutions will indeed have much to say on these and on related matters. I hope they will be able to work out their own solutions to satisfy their own problems, thus making unnecessary any direct or indirect pressures from government to move along certain lines. I do not like the mandated solution adopted in Great Britain, and perhaps we can avoid that particular undesirable set of circumstances in Ontario. But we can't do it unless the teacher training institutions cooperate in the development of adequate and satisfactory solutions. In light of further data, I will be able to present

what seem to be the most promising sets of alternatives for these institutions to consider.

Questions and Issues

1. Who should control such matters as numbers to be admitted to teacher training institutions, new programs, staffing, size of institutions and number, manpower versus general education purposes and specialization by institutions?
2. Who conducts the in-service and professional development programs-- school boards/Ministry of Education? OTEC? faculties of education? teacher federation affiliates?
3. How should surplus/redundancy criteria and procedures be developed? How much responsibility does an employer have for staff development and for transfer or placement of staff declared surplus?
4. What should be the proper balance of staff in terms of age, experience, sex and levels of competency or merit?

Chapter 7

School Buildings and Sites

Of all the problems raised by declining enrolments, none seems more vexatious than the use or disposal of unused classrooms and schools. Local community groups organize and bring pressure to bear on the school authorities at all levels from the principal, who is the closest and most approachable, up to the school board. In the latter use, the hapless trustees find themselves assailed, even threatened with physical violence, at home or on the street, in their business offices and at the school board meetings, and generally individually as well as collectively. Small wonder that trustees and their officials tend to evade the issue, or the crunch, just as long as possible, although experience in many jurisdictions has demonstrated that these problems can be solved without such anger and bitterness. The means lie in careful, long-term planning, full disclosure of all the facts and all the plans well in advance to all the interested and affected parties, and a deliberate policy of full community involvement in decision making about the closing of classrooms and schools from the very beginning to the very end.

This procedure is not, as it might appear at first sight, an evasion of responsibilities and duties on the part of the trustees and their officials, but a clear recognition of the rights of the citizens, and parents in particular, to be kept informed and involved in the democratic process. One of the greatest advantages of this method is that confrontations are avoided. When they do arise it always means that there has been failure on the part of the trustees and their officials to recognize the rights of others.

An almost equally serious error is to approach the question of closure on the bases of saving dollars. The primary business of the trustees and their officials is to provide the best possible education for the children entrusted to their care. If expenditures can be reduced, that is an incidental advantage; if the best solution (in terms of programs for the children) will cost more money, then that is the way it must be done.

Again experience in this province and in other jurisdictions has shown, time after time, that given that primary objective and provided there is full and meaningful community involvement throughout, even the toughest problems of this kind can be solved satisfactorily and amiably. Amusingly, very often the local citizens have been proven right in their insistence on maintaining their local community school. In many parts of our province outside the large urban centres the school is the heart and soul of the community, often together with the church or churches. So the closing of classrooms and schools is also in the main a human problem, not solely a matter of an accountant balancing his books or an efficiency expert justifying his set of beautiful charts and plans.

Our earlier chapters on population and school enrolment have, I hope, demonstrated beyond any shadow of doubt that we are going to be faced with the problems of empty classrooms and vacant schools for many years. In part we are reaping the successes of an earlier era in coping with expansion of the school system. Once the slowdown in school building caused by the Depression and World War II was over and material and labour became available, work was begun on some of the backlog of building needs. But what began as a modest catch-up program developed into a torrent of building as the postwar Baby Boom began and continued well past its anticipated end. There was also a dramatic increase in the number of years students spent in secondary schools so that even before the postwar babies were of high school age there was a big upsurge in spending on secondary school buildings and sites.

But now we are playing a different ball game, and all the rules have been changed. So have most of the players. The primary concern of the responsible school authorities of this province, in all but a handful of boom areas, is the management of decline, not of expansion. Let us, then turn now to what is being done in Ontario today.

Present practices in utilization or disposal of surplus space (classrooms and schools)

As enrolments continue to plummet, growing numbers of classrooms -- so far mostly in elementary schools -- are becoming surplus. Technically, as defined by the Ministry of Education, "surplus" refers to any classrooms

not occupied by a teacher and a specified number of students. There are two different types of vacant space:

1. Space unoccupied in any way.
2. Classrooms not being used for instruction but occupied with board-managed services supporting the instructional program (e.g., lunch room, special art room).

When such space is required to improve the educational unit, and its use for these purposes has been approved by the Ministry of Education, it is generally not considered as "vacant" classroom space.

Initially, most schools take advantage of the new space to offer activities for which they previously had no room. However, with the steadily increasing number of empty classrooms, and where compatibility with the continuing operation of the school permits, schools are opening their doors more and more to outside users -- first school related users, then the community.

When contemplating the closing of a school, some boards include in their policies guidelines for the disposition of buildings and grounds. This has assumed great importance because it has been found that parents and other community residents are more willing to accept the need for phasing out "their" school if set procedures to making such a decision are followed and there does not appear to be arbitrary action. Much conflict has been encountered by a number of boards because of the proposed use of the abandoned facility.

A variety of practices for handling surplus space have been adopted by some school boards to date, all within the general context of established Ministry procedures. Some of these school boards were included in the Commission's Information Bulletin #1 entitled School Facilities, The Community and Declining Enrolment, as case studies. They are, in alphabetical order: Etobicoke, Frontenac County, Hamilton, Hastings County, Lakehead District, Lincoln County, London, Niagara South, Nipissing, Ottawa, Sault Ste. Marie R.C.S.S., Scarborough, Stormont, Dundas & Glengarry County, Sudbury R.C.S.S. and Windsor.

It should be noted that to date most boards which have established practices and/or guidelines for surplus space are large urban ones, perhaps because the problem of declining enrolment is felt more acutely here. This is partly due to the emergence of the concept of community use of the schools in the cities and partly to the fact that city boards usually have an experienced research and planning department which provides ready access to relevant statistical information. A third reason may be the recent upsurge in local community opposition to school closure, necessitating the provision of a wider choice of alternative uses.

Ministry of Education regulations and guidelines are adhered to in both utilization and disposition of surplus classrooms and buildings:

1. Utilization

The following order of priority is observed:

- (a) for accommodation of students of the separate school board or other non-profit schools
- (b) for the needs of the publicly supported post-secondary education system
- (c) for the needs of the community (e.g., community centres, libraries, day-care centres, etc.)
- (d) for the needs of other government agencies,
- (e) for the needs of the private sector.

2. Disposition (sale)

If the board cannot lease the building, it may be offered for sale to the following, in order,

- (a) another school board
- (b) a publicly supported post-secondary education institution
- (c) the municipality in which the land is located or to the local board thereof
- (d) a ministry of the Government of Ontario or an authority established by it
- (e) a non-profit organization funded in whole or in part on a continuing basis by the provincial government or the Government of Canada

- (f) the general public through the process of public tender, if no offer to purchase at a price acceptable to the school board is received within 90 days from any of the bodies referred to above.

Some boards (notably most of the ones mentioned above) have developed a set of options based on established guidelines and practice. Any plan for alternative use of accommodation surpluses generally aims at improving, or at least maintaining quality of services and educational opportunity in the face of ever shrinking financial resources. It is becoming an accepted practice to consider one or more of the following strategies.

1. Adjust attendance-area boundaries.
2. Supplement/upgrade programs in schools which do not meet the desired standards.
3. Relocate programs such as French immersion, special education and English as a second language (ESL).
4. Alter existing school organizational structures; reorganize grade level breakdown.
5. Establish split classes (but avoid triple gradings within one classroom).
6. Twin or pair schools.
7. Establish special-purpose open-enrolment schools.
8. Use vacant classroom space for other needs of the public/separate education system.
9. Share accommodation with another board, develop community use of the facility. Lease vacant classroom space to obtain revenue and/or share maintenance costs, develop community use of the facility or share accommodation with another board.
10. Lock one or more surplus classrooms.
11. Repatriate grades 7 and 8 to the feeder schools.
12. Close the school and transfer students and staff, or phase closing, one grade at a time. (Transportation is an important consideration here.) Attempt to use the

building in a method outlined in (8) and (9) above.
Failing this, offer it for sale with the approval
of the Ministry of Education. Mothball the building
only if it cannot be sold or leased.

School boards tend to adopt any combination of these options.
Number 8, 9, 10 and 12, which are most relevant for our purposes, are
treated here in more detail.

Use vacant classroom space for other needs of the public/separate
education system

Included in this option are junior kindergarten; expanded remedial
programs; improved physical or outdoor education; art, music, French
(immersion); English as a second language; and ethnic languages (heritage
language program) in schools serving multi-cultural areas. Special
enrichment programs for gifted children have been introduced. Schools
may require surplus space for staff rooms, general purpose rooms, gymnatoria,
resources centres, storage areas, science rooms, guidance or coordinator/
consultant's offices.

Thriving continuing education classes, guided by the philosophy that
learning is a lifelong endeavour, provide educational and recreational
(day-time and evening) programs for adults. Special vocational programs,
too, are enjoying increasing popularity. These are geared to 13 - to
15 - year old students who cannot cope with or benefit from the regular
system. The Ottawa and Durham Boards of Education are among those which
have developed such programs. One board (Etobicoke) cautions against
masking declining enrolment by filling space in a shrinking school. The
fact of redundant space must be made readily apparent to the community.

Lease vacant space in order to obtain revenue and/or share maintenance
costs, develop community use of the facility or share accommodation
with another board

Surplus space in Ontario Jurisdictions is leased at a rent determined
in accordance with Ministry of Education memoranda and regulations.
Rental fees are based on cost recovery: there is a strong feeling on the
part of numerous board officials (such as in Scarborough) that the leasing

organization must be ready to pay the full operational/maintenance cost of the classroom, about \$1,200 each per year, or the regular education program will suffer. Education and non-profit organizations or agencies are exempt. Compatibility of use (with the operation of a school) is another major consideration. Sometimes a cancellation clause is written into the lease.

As a case in point, the Ottawa R.C.S.S. Board is presently leasing three schools. The lessee is responsible for any operation, maintenance and repair costs incurred. The board maintains insurance on the buildings, and pays for the cost of repairs to the structure. Any loss in grant money resulting from the leasing of the schools is also charged to the lessee as rental.

Occasionally, a school board draws up separate guidelines (e.g., London). The major difference between the two lies in financial considerations. Requests for commercial use are not granted if the school is still needed for pupil accommodation.

School boards try to maximize community use of school facilities in many ways. Vacant space is most frequently used for expanded special education*, nursery and pre-school as well as school-age day-care programs. Health and psychiatric units/clinics, various community groups and social service agencies (Family Service Association, Social Planning Council, etc.) make extensive use of surplus classrooms. Users may be recreation or leisure agents; the Department of Parks and Recreation runs day-time and evening programs for adults and children. Alternate (e.g., Montessori) schools and community colleges have taken over school space. Classrooms have seen conversion to art/music/dance studios and to board offices. Other users include senior citizens, immigrants, library and volunteer services, the Red Cross, family courts, Block Parents, Canada Works

* Serving children with mental, physical, emotional and perceptual handicaps. Example: At Clinton Street Junior P.S. in Toronto, a program for the trainable retarded has been integrated as much as possible with the school.

projects, income tax clinics, chamber orchestras* and community newspapers* . Some jurisdictions stress multi-use, particularly if one or two entire floors in one school become vacant. Community requests for use of vacant space are on the increase in proportion to the rate of decline or even exceeding it. A changing concept of education can be discerned, namely, the belief that education is a continuing process and that everyone, regardless of age or socio-economic condition, can participate in and benefit from it.

Sharing accommodation with an adjacent board is accepted practice in cases where neighbouring boards encounter simultaneous growth and decline. On occasion two elementary boards (public and separate) have planned to close schools at the same time; mutual consultation was deemed beneficial in such an event.

Lock one or more classrooms

A few school boards have adopted a formula for the closing of surplus classrooms. The Etobicoke board, for instance, stipulates that, depending on the number of students in special education classes (1-8, 9-16, 17+), one to three surplus rooms are allocated to public schools for program enrichment. Spare classrooms over this formula that are not leased to community organizations are locked to reduce heating and care-taking costs. (The Etobicoke board has found that the caretaker or principal may be pressured from time to time to reopen an empty room for a single occasion. It is, therefore, deemed advisable to install new locks and keep the key in board offices. The annual savings for a locked classroom in Etobicoke are estimated to be \$1,250. Several other boards are thinking of using the Etobicoke formula as a model.)

Close the school and transfer students and staff

School closure is considered to be the last step in solving the problem of declining enrolments. Because of its controversial nature especially if a small neighbourhood school is involved, it has been described as a short-sighted measure that can have long-term effects on

* Used in exchange for free rehearsal attendance for children and for giving journalism classes.

the cohesive fabric of a neighbourhood. More often than not it arouses the ire of local community pressure groups. Anticipated savings are not always realized because of additional expenditures required for modifying facilities in receiving schools, increased transportation costs, reduced school support, decreased property values, neighbourhood deterioration and disruption of educational programs.

Even in cases where savings have been realized, it is recognized that cost is not the sole issue, but that economies must be balanced against safety factors, quality of educational experience and impact on community neighbourhood.

One board has carried out a successful school closing system for some time. When, after much study and debate, the administration recommends to the board that a school be closed, each parent receives written notification of the recommendation with a request to voice opinions.

The board then appoints a committee of the principals of all schools concerned, the director of education, the business administrator and five of the most vocal parents opposed to the closing. No trustees are appointed to the committee.

The committee is given all the facts so that it can arrive at a knowledgeable decision. In every case the committee has recommended that the school be closed.

A number of boards have paired schools, organized split grades and locked surplus classrooms prior to closing a building. Parents and other residents are, therefore, already aware of the declining enrolment in these schools and, at the same time, of the increasing cost of education. It appears more reasonable to them that the number of schools should decrease.

Some boards have had to close up to 11 schools after enrolment has dropped by as many as 10,000 students.

Boards tend to encounter confrontations with the community largely on a proposal to close; relatively little criticism is heard after the school is closed and the children settled in their new environment.

Board administrators agree that the longer the time taken (18 months to 3 years) to prepare a community for closing a neighbourhood school, the more satisfactory the closing process to all parties.

Clear policy guidelines for closing schools are held to be necessary by all involved, especially when the disposition of a building is concerned.* Such policies contain clauses on (1) advisory committee membership and purposes (2) criteria for closure (3) the process of closure (4) conversion of space and (5) two optional items -- transportation and furniture/equipment.

Criteria for closure include:

1. Inadequacy of the building for other uses (location, substandard facilities, safety features, etc.)
2. Availability of space in nearby schools
3. Availability of cheaper alternatives
4. School size and operation of the unit not suitable for other purposes.

The process of closure involves:

1. Collecting, analysing and assimilating relevant information (projected enrolment in relation to functional-rated capacity, cost analysis and demographic data of each school involved)
2. Determining the proper relocation of students
3. Communicating with school staff about transfers
4. Communicating with the community
5. Receiving approval of senior administrator(s) (superintendent)
6. Considering the disposition of buildings and grounds.

The handling of transportation is not incorporated in a board's policy for closure, a separate study is usually carried out. Sometimes an ad hoc committee is set up by the board. Although transportation studies/surveys differ in scope and content, several boards regularly review such questions as safety, travelling time, location of pick-up and delivery points, luncheon arrangements and after-school activities.

* Some reports do not recommend a policy regarding the closing of schools "since each situation is almost unique".

If a closed building is temporarily mothballed (i.e., boarded up and used for storage until such time as it needs to be reopened) it often becomes a target for vandalism, needs costly maintenance and causes parents to wonder why available property is sitting idle. Residents complain about litter and weeds on the site. For this reason, school boards are more interested in finding a suitable tenant for the building.

* * *

Survey of use of school buildings and sites today

An acceptable alternative use is defined as one that benefits the community without being a disruptive influence on the neighbouring homes. The most welcome lessees in the eyes of the community are educational organizations that offer academic and recreation programs. Vacant school property is currently used for:

- municipal arts centres
- municipal recreation areas or playgrounds
- service or ethnic clubs
- education or administrative centres, including a professional resource centre
- community colleges/university annexes
- junior vocational annexes
- adult day schools
- centres for the mentally or trainable retarded
- alcoholic rehabilitation centres
- apartment homes
- youth recreation centres
- community centres
- private residences (small rural schoolhouses)
- alternate schools

If no lessee is found for a closed facility, a decision must be made about its disposal. The most common decisions were to sell the property or make a transfer between panels (i.e. from the elementary sector to the secondary, or vice versa). Reasons given for selling

included: the property was "no longer required for school use"; small boards were amalgamated into larger units and the property was expropriated for road widening, sewers, highway overpasses, etc.; the physical condition of the buildings was poor; the building was abandoned. A considerable number of properties have been sold to recreation, education and social service organizations. Sometimes a property is traded for equal value because the only other alternative is sale for \$1.

Generally speaking, any "new" use of school buildings and sites attempts to meet the education and recreation needs of all community members young and old alike, and to respond to the right of every individual to engage in continuous learning.

Current Availability of Surplus School Facilities

The magnitude of the problem is a bit breath-taking at first sight. If we add up all the empty student spares for 1977, without making allowance for the fact that the odd spaces here and there should not really be counted at face value, we reach the astounding total of over 600,000! Knowing how hard such a figure is to believe, or even accept without belief, we pulled together the figures available and present them below in Tables 7.1, 7.2 and 7.3

Surplus space estimates can be calculated from two sets of data provided by the Ministry of Education. They appear below: (1) 1976 enrolment figures¹ and (2) 1977 pupil loadings², as determined by the Ministry for legislative grant purposes (Capital Grant Plan). The difference -- obtained by subtracting (1) from (2) -- is divided by an average occupancy rate of X pupils per class in the elementary panel, and Y pupils per class in the secondary one.

The exact occupancy rate will vary from board to board. In the Commission's Information Bulletin #1, School Facilities, the Community and Declining Enrolment, boards were, therefore advised to work out the

¹Information Systems and Records.

²Education Data Processing.

number of surplus classrooms in their jurisdiction individually. It is hoped that this bulletin will succeed in convincing school systems throughout the province of the fact that there is, indeed, unused space.

Surplus school space can be projected by using the enrolment projections (available up to 1986 from the OISE Department of Educational Planning) and current pupil loadings. The same procedure as outlined above is then followed. The fact that a board has surplus space does not ensure that it is in a geographical location where it can be used economically.

Did those of us responsible for the building boom of the 1950's and 1960's simply squander money like the proverbial drunken nobility? The answer is no. We simply had to provide buildings for those growing numbers of children we raised and for those who poured into Ontario from other provinces and countries as well. Remember, the first definite indications of a likely decline did not show up until the census of 1966, and no one could have foreseen at that time that the drop in fertility would be so sharp and so prolonged, or that it would be accompanied by that overturn of the economic order which we now despairingly refer to as "stagflation" and still haven't learned to live, or cope, with. In truth, the whole structure, not only the roof, fell in, and now we are in trouble despite those thousands of unsightly and frequently unsuitable portable classrooms that sprang up like mushrooms to look after what we thought very likely could be a temporary condition in many communities (parents will move away from a perfectly good school, with their children, as their fancy and better jobs may call them). Mind you, even after we were fairly certain there would be a major enrolment decline, the buildings started had to be completed and the secondary school sector was still booming. But we stopped fast, as the figures in Table 7.4 show:

TABLE 7.1
ESTIMATE OF TOTAL NUMBER OF SURPLUS
CLASSROOMS IN ONTARIO, BY BOARD (1976) - PUBLIC ELEMENTARY

| County/District | Capacity (Nov '77) | Enrolment (Sept '76) |
|------------------------------|--------------------|----------------------|
| Albion | 1,460 | 913 |
| Brant | 16,488 | 12,099 |
| Bruce | 8,033 | 8,047 |
| Carleton | 30,016 | 23,543 |
| Central Algoma | 2,528 | 1,712 |
| Chapleau | 565 | 371 |
| Cochrane-Troquois Falls | 2,474 | 1,741 |
| Dryden | 5,007 | 3,508 |
| Dufferin | 5,805 | 4,809 |
| Durham | 38,774 | 30,656 |
| East Parry Sound | 4,182 | 3,015 |
| East York | 14,880 | 10,010 |
| Elgin County | 11,706 | 9,660 |
| Espanola | 1,911 | 1,319 |
| Essex County | 14,316 | 10,716 |
| Etobicoke | 49,283 | 31,416 |
| Fort Frances-Rainy River | 3,883 | 2,425 |
| Frontenac County | 17,663 | 11,531 |
| Geraldton | 901 | 566 |
| Grey County | 13,662 | 10,361 |
| Haldimand | 6,503 | 4,832 |
| Halliburton | 2,151 | 1,644 |
| Hatton | 41,190 | 31,344 |
| Hamilton | 47,385 | 29,100 |
| Hastings County | 16,921 | 13,292 |
| Hebert | 490 | 390 |
| Huron County | 10,061 | 7,656 |
| Kapuskasing | 1,156 | 806 |
| Kenora | 2,796 | 2,089 |
| Kent County | 15,321 | 12,111 |
| Kirkland Lake | 2,730 | 1,729 |
| Lake Superior | 2,730 | 1,301 |
| Lakehead | 20,730 | 13,157 |
| Lambton County | 21,587 | 14,586 |
| Lanark County | 7,049 | 5,378 |
| Leeds & Grenville | 13,584 | 10,535 |
| Lennox & Addington | 6,900 | 5,510 |
| Lincoln County | 29,805 | 21,014 |
| London | 41,643 | 27,713 |
| Manitoulin | 1,567 | 1,212 |
| Michipicoten | 641 | 589 |
| Middlesex County | 11,144 | 8,380 |
| Muskoka | 6,140 | 5,121 |
| Niagara South | 30,682 | 20,599 |
| Nipigon-Red Rock | 1,016 | 635 |
| Nipissing | 8,744 | 6,038 |
| Norfolk | 8,987 | 6,770 |
| North Shore | 2,746 | 1,874 |
| North York | 99,016 | 60,175 |
| Northumberland & Newcastle | 18,481 | 13,738 |
| Ottawa | 36,499 | 20,381 |
| Oxford County | 14,442 | 11,263 |
| Peel | 67,352 | 51,603 |
| Perth County | 11,283 | 8,740 |
| Peterborough County | 14,939 | 12,224 |
| Prescott & Russell County | 1,183 | 1,218 |
| Prince Edward County | 4,543 | 3,217 |
| Red Lake | 1,217 | 1,153 |
| Renfrew County | 11,833 | 8,282 |
| Sault Ste. Marie | 13,356 | 9,116 |
| Scarborough | 79,123 | 54,904 |
| Simcoe County | 32,331 | 28,019 |
| Stormont, Dundas & Glengarry | 11,692 | 7,365 |
| Sudbury | 20,237 | 12,773 |
| Timiskaming | 4,133 | 2,921 |
| Timmins | 4,375 | 3,208 |
| Toronto | 90,286 | 58,348 |
| Victoria County | 7,486 | 6,174 |
| Waterloo County | 42,395 | 32,349 |
| Wellington County | 19,664 | 15,269 |
| Wentworth County | 19,230 | 12,800 |
| West Parry Sound | 3,657 | 2,535 |
| Windsor | 25,137 | 15,582 |
| York Borough | 18,997 | 13,676 |
| York County | 34,776 | 28,200 |
| TOTAL | 1,312,966 | 929,056 |

ESTIMATE OF TOTAL NUMBER OF SURPLUS
CLASSROOMS IN ONTARIO, BY BOARD (1976) - SECONDARY

| County/District | Capacity (Nov '77) | Enrolment (Sept '76) |
|------------------------------|--------------------|----------------------|
| Atikokan | 780 | 603 |
| Brant | 8,230 | 6,744 |
| Bruce | 4,905 | 3,632 |
| Carleton | 17,740 | 15,134 |
| Central Algoma | 900 | 749 |
| Chapleau | 400 | 364 |
| Cochrane-Iroquois Falls | 2,170 | 1,800 |
| Dryden | 2,220 | 1,866 |
| Dufferin | 2,500 | 2,351 |
| Durham | 19,850 | 17,019 |
| East Parry Sound | 1,130 | 1,351 |
| East York | 4,330 | 5,033 |
| Elgin County | 6,310 | 4,855 |
| Espanola | 1,460 | 1,150 |
| Essex County | 8,970 | 8,687 |
| Etobicoke | 24,095 | 22,012 |
| Fort Frances-Rainy River | 2,235 | 1,661 |
| Frontenac | 9,870 | 8,135 |
| Geraldton | 830 | 711 |
| Grey County | 6,480 | 5,552 |
| Haldimand | 4,055 | 2,975 |
| Halliburton | 710 | 676 |
| Halton | 21,810 | 20,935 |
| Hamilton | 27,135 | 18,710 |
| Hastings County | 10,545 | 9,198 |
| Hearst | 5,730 | 4,689 |
| Kapuskasing | 3,250 | 2,271 |
| Kenora | 1,885 | 1,675 |
| Kent County | 9,984 | 8,370 |
| Kirkland Lake | 1,820 | 1,707 |
| Lake Superior | 1,415 | 968 |
| Lakehead | 11,850 | 9,603 |
| Lambton County | 9,670 | 8,897 |
| Lenark County | 4,145 | 3,619 |
| Leeds & Grenville | 7,675 | 6,232 |
| Lennox & Addington | 3,750 | 2,725 |
| Lincoln County | 15,810 | 12,629 |
| London | 24,810 | 18,554 |
| Manitoulin | 960 | 931 |
| Michipicoten | 790 | 580 |
| Middlesex County | 4,685 | 4,373 |
| Muskoka | 2,700 | 2,835 |
| Niagara South | 18,640 | 14,359 |
| Nipigon-Red Rock | 815 | 470 |
| Nipissing | 10,325 | 7,467 |
| Norfolk | 5,465 | 4,004 |
| North Shore | 2,530 | 1,731 |
| North York | 30,745 | 36,203 |
| Northumberland & Newcastle | 9,915 | 7,858 |
| Ottawa | 32,395 | 25,211 |
| Peel | 31,370 | 28,784 |
| Perth County | 5,865 | 5,540 |
| Peterborough County | 9,640 | 7,785 |
| Prescott & Russell County | 4,835 | 4,251 |
| Prince Edward County | 1,600 | 1,497 |
| Red Lake | 650 | 489 |
| Renfrew County | 9,145 | 7,855 |
| Sault Ste. Marie | 10,505 | 6,968 |
| Scarborough | 33,625 | 31,755 |
| Simcoe County | 18,935 | 15,959 |
| Stormont, Dundas & Glengarry | 11,439 | 9,232 |
| Sudbury | 19,490 | 15,040 |
| Timiskaming | 3,180 | 2,578 |
| Timmins | 4,765 | 3,773 |
| Toronto | 37,905 | 36,790 |
| Victoria County | 3,390 | 3,159 |
| Waterloo County | 21,635 | 17,850 |
| Wellington County | 9,670 | 8,695 |
| Wentworth County | 8,885 | 7,471 |
| West Parry Sound | 1,240 | 1,367 |
| Windsor | 15,910 | 12,910 |
| York Borough | 9,790 | 8,562 |
| York County | 19,235 | 16,446 |
| TOTAL | 711,293 | 610,918 |

TABLE 7.3

ESTIMATE OF TOTAL NUMBER OF SURPLUS
CLASSROOMS IN ONTARIO, BY BOARD (1976) - SEPARATE

| County/District | Capacity (Nov '77) | Enrolment (Sept '76) |
|----------------------------------------------------|--------------------|----------------------|
| Atikokan | 565 | 366 |
| Brant | 5,257 | 3,445 |
| Bruce-Grey | 3,937 | 3,131 |
| Carleton | 21,390 | 15,692 |
| Chapleau Parot & Township | 675 | 404 |
| Cochrane-Iroquois Falls | 3,417 | 1,995 |
| Dryden | 700 | 434 |
| Dufferin-Peel | 22,382 | 21,919 |
| Durham Region | 11,739 | 8,567 |
| Elgin County | 2,122 | 1,658 |
| Essex County | 12,343 | 10,358 |
| Fort Frances — Rainy River | 1,130 | 659 |
| Frontenac-Lennox & Addington Co. | 5,986 | 4,381 |
| Geraldton | 1,130 | 854 |
| Haldimand Norfolk | 3,751 | 2,739 |
| Halton | 10,382 | 8,225 |
| Hamilton-Wentworth | 31,194 | 22,320 |
| Hastings-Prince Edward County | 4,850 | 3,909 |
| Hearst District | 2,405 | 1,570 |
| Huron-Perth | 3,958 | 2,986 |
| Kapuskasing District | 5,549 | 3,088 |
| Kenora District | 1,546 | 1,256 |
| Kent County | 7,277 | 5,768 |
| Kirkland Lake District | 2,883 | 1,634 |
| Lakehead District | 8,413 | 7,023 |
| Lambton County | 7,133 | 5,615 |
| Lanark, Leeds & Grenville County | 4,463 | 2,949 |
| Lincoln County | 11,226 | 8,475 |
| London & Middlesex | 16,339 | 11,085 |
| Metropolitan Toronto | 103,242 | 90,876 |
| Michipicoten District | 990 | 679 |
| Nipissing District | 13,845 | 9,133 |
| North Shore District | 4,722 | 3,180 |
| Ottawa | 42,454 | 20,710 |
| Oxford County | 3,121 | 2,184 |
| Peterborough, Victoria, Northumberland & Newcastle | 7,627 | 5,999 |
| Red Lake | 210 | 95 |
| Renfrew County | 9,948 | 6,093 |
| Sault Ste. Marie District | 8,937 | 7,301 |
| Simcoe County | 8,621 | 5,781 |
| Stormont, Dundas & Glengarry | 15,277 | 8,974 |
| Sudbury District | 32,904 | 23,831 |
| Timiskaming District | 3,740 | 1,983 |
| Timmins District | 7,554 | 5,268 |
| Waterloo County | 22,983 | 16,827 |
| Welland County | 16,412 | 11,910 |
| Wellington County | 6,882 | 4,959 |
| Windsor | 25,638 | 17,358 |
| York Region | 9,006 | 7,675 |
| TOTAL | 570,088 | 420,673 |

Table 7.4
Capital Expenditures of School Boards, 1967 to 1977
 (from Reports of the Minister of Education)

| <u>Year</u> | <u>Capital Expenditure (thousands)</u> |
|-------------|----------------------------------------|
| 1967 | \$285,742 |
| 1968 | 300,990 |
| 1969 | 284,034 |
| 1970 | 269,570 |
| 1971 | 277,927 |
| 1972 | 211,731 |
| 1973 | 165,481 |
| 1974 | 162,425 |
| 1975 | 176,264 |
| 1976 | 144,111 |
| 1977 | 108,000 (est.) |

Historical outline of the financing of school building

Capital funds were secured from many sources, e.g. the Ministry of Education, the federal government (indirectly), from local taxes (capital expenditure from current revenues), and from borrowing through the issuance of debentures (and, I think from church funds and even from the proceeds of lotteries and bingo games, if the truth were known).

At the end of World War II the almost universal method of financing new construction was the borrowing of money by the issuance of long-term (usually twenty-five year) debentures and their sale on the open market. Separate school boards did this directly. The others, public elementary and secondary school boards, had to rely on the municipalities to issue and sell their debentures. The rural elementary school boards, including those in township school areas, had first to submit the proposed borrowing to their electors for approval; after it was obtained, the board could require the municipal council to issue the debentures (subject to approval by the Ontario Municipal Board). Urban elementary and all secondary school boards merely requested the issuance of debentures from their councils. If council agreed, as they did over 90% of the time, the debentures were issued (again, subject to OMB approval) without appeal

to the electors. If, however, council refused to issue debentures the board could require it to put the question to the electors and if this vote was favourable, the council was required to issue the debentures once OMB approval was obtained. There were three main problems with this method of financing school construction:

1. School jurisdictions in the 1950's were growing larger and extending beyond the boundaries of a single municipality. That posed the problem of deciding which municipality should be asked to issue the debentures. It was also necessary to cope with veto power. Since more than one municipality was involved, it needed only one refusal to share in the debt to stop the debenture.
2. Because most municipalities had relatively little real property backing, interest rates for school debentures tended to be high.
3. The Ontario Municipal Board used the ratio of outstanding municipal debt to total taxable assessment as a criterion for approving borrowing. Sometimes a debt over-burden in one municipality forced the OMB to turn down the debenture application of a school board that serviced a dozen or more municipalities.

The resolution of these problems was usually a long process, sometimes resolved only by a special Order-in-Council authorizing the debenture issue.

The post war period saw several changes in financing of school construction through borrowing. In 1957 school boards in organized townships were empowered to dispense with presenting a borrowing program to their electors and could go directly to the municipality, as urban elementary and all secondary boards did.

In 1965, when all area school boards in organized townships became incorporated into single township school boards, the only remaining boards required to get direct ratepayer approval were those in unorganized townships or unsurveyed territory (where there was no municipal authority to give the approval on behalf of the ratepayers). This meant that after

1965 no board could force a council to raise debentures for a school by getting direct approval of ratepayers (followed, of course by OMB approval). Instead, the 1965 Act permitted school boards to include up to two mills each year in their councils' current capital improvements expenditures, without seeking the usual sanctions for debenture borrowings, i.e., by council and OMB approval. The limitation was more recently changed to one mill on equalized assessment -- for some boards a small and for others a large amount of money. However, much of the impetus and assistance for construction came from the province in the form of grants, as part of the total grant plans for education.

Provincial Assistance for Capital Expenditure

The immediate post-war years coincided with a dramatic change in the nature and amount of provincial financial support for school expenditures. In 1945, legislative grants to elementary and secondary school boards increased to \$26,606.874 from \$8,980,273 the year before -- a staggering increase in one year of 196%. In that year, the new grant plan was based on the principle of "approved cost", with the province assuming a variable percentage of such costs for elementary boards, related to population in urban municipalities and to assessment per classroom in rural areas, and for secondary boards based on the ratio of approved cost to assessment for school purposes. For both levels, "approved cost" included both annual debt charges (principal and interest) and capital outlays from current revenue.

However, after 1945, there were per-pupil limits placed on the total amount of approved cost. Thus, in the period from 1945 through 1949, expenditures for new construction were assisted provincially at the same rate as were expenditures, for example, for teachers' salaries. This was not true, however, if high debt charges for capital outlays and transportation costs pushed a board's approved cost above the per-pupil limitation, which was often a danger. As capital expenditure increased after 1945, this problem grew until, in 1950, a new grant plan was introduced which defined approved cost in a less global manner. The per-pupil limitation was removed from the total approved cost and placed instead (for elementary boards) on teachers' salaries only. To this sum

was added, among other things: "disbursements made from current funds... in respect of principal, interest and other charges due ... on debentures and capital loans (and for) new schools, additions to schools, new classrooms."

This meant that not only could all debt charges be supported by the same percentage rate of grant as were teachers' salaries (within the limitation) but also boards which took advantage of the provision, noted above, whereby an addition or a whole school could be financed in one year out of the two-mill addition to current revenue (not difficult for larger cities), would receive similar provincial support.

For secondary boards, approved cost did not include teachers' salaries and other ordinary current expenditures, but it did include all forms of expenditure on new construction. The grant paid in approved cost for secondary boards varied from a low of 15% to 30% (depending on the type and location of the municipality) to a high of 50% to 75%.

As the flood of new building at both the elementary and secondary levels increased in the 1950's, the burden of high debt charges and rising transportation costs (caused by the rapid increases in centralized elementary and secondary schools in rural areas) were putting excessive burdens on property taxes and/or limiting the desired completion of the network of central schools. As a result a new grant plan was introduced for 1958. The new feature that is of concern to the topic of this chapter was the introduction of a growth-need-grant principle. Basically this principle meant that a board's rate of grant increased not only as its unit taxable assessment declined, but also as its debt charges, transportation and capital outlays from current revenue (called extraordinary expenditure) per pupil increased.

From 1958 to the present this concept has resulted, for all boards, in higher rates of grant being paid on extraordinary expenditures than on ordinary expenditures. It might be claimed that such a practice would distort board budgetary decision-making -- towards expenditure on extraordinary expenditure at the expense of ordinary expenditure. The Ministry has taken a series of steps to minimize such a result. From 1954 through 1959 the approved cost of debt charges was based on \$20,000 per classroom

and only essential classroom space was counted. Thus a new ten-room school could be approved for grant purposes at \$200,000. But the school might well cost \$400,000 if the board decided to include a cafeteria, auditorium, gymnasium, library and shop. Ministerial policy was to permit such a building to be built but to include in approved cost only 50% of the debt charges on that building throughout the twenty - or twenty-eight year span of the debt. The remaining 50% as well as the board's share of the approved portion had to be raised by local taxation. Except for the very ablest boards, this practice resulted in the construction of buildings as close as possible to the Ministry approval levels. Poor boards just did not build general purpose rooms, libraries and home economics classrooms. In 1959 the approved limit for secondary schools was raised to \$25,000 per classroom, and the former rigidity on what was to be counted as a classroom was somewhat lessened.

While there were two further major changes in the grant structure after 1958 (one in 1964 and another in 1969), the provisions relating to extraordinary expenditure and hence to debt charges and capital outlays from current revenue remained essentially the same: the effective rate of grant on extraordinary expenditure increased as the amount of such expenditure per pupil increased.

There have been some changes both in grant structure and provincial policy which have affected the approvals for construction of school buildings:

1. A new method of approving capital expenditures was adopted in 1967 (and made retroactive to 1965). The new formula related approval to the type of accommodation (classroom, auditorium, cafeteria), the size of the building in terms of pupil places and the geographical location of the project. By the use of "accommodation unit factors" based on type of school and square footage, a much more accurate measure of needed and approved space became available. Differences in unit cost of construction in different regions of the province were also considered. The result was that between 80 and 100% of what had already been cut in projects since 1965 became recognized for grant purposes.

2. From 1967 on debentures were sold to the newly established Ontario Education Capital Aid Corporation (financed with Canada Pension Plan funds) instead of on the open market. This provided a much more secure source of funds at lower rates of interest than had previously applied.
3. In the early 1970's the policies of the Ministry of Education changed again. With concern over keeping local mill rates from rising, boards were not authorized to construct schools that cost more than the amount of ministerial approval. This action followed the release of Interim Report Number Two of the Committee on the Costs of Education, which recommended "that the amount of capital money to be made available to the Ontario Education Capital Aid Corporation to provide accommodation in elementary and secondary schools be limited to \$50 millions per year, in terms of 1972 constant dollars, for each of the fiscal years 1973 to 1981 inclusive, a reduction of \$109 millions below the amount allocated for 1972".

Boards were asked to prepare five-year plans for changes in accommodation needs and were required to justify much more stringently than before all requests for school construction. An additional feature was the decision to look at the total need for elementary school places in a region and require the public and separate school boards to cooperate when space surplus to the needs of one of the other of the boards became available.

4. When the new county and district boards of education were created in 1969, the power to issue debentures for both public school and secondary school purposes was transferred to them from the municipal and county councils. Only in Metropolitan Toronto are public and secondary school debentures still issued by, and subject to, the approval of the municipal council.

5. In 1976 the growth-need feature of the grant plan, which had been in effect since 1958, was abandoned, but was restored in 1977 except that capital expenditures from the revenue fund and debt charges on debentures issued in 1977 continued not to be eligible for the growth-need feature.

Evaluation of Available Documents on the Alternative
Utilization of School Property

Knowing how many school boards are faced every day with these problems, I decided to try to help by providing some practical information. I hope I won't be misunderstood when I say that I commend the following to your attention, and quite seriously, without necessarily supporting or recommending any or all of the practices described herein. In any case, I prefer to take this risk rather than to leave the school boards without this assistance at this time; of course, I know that I'll be blamed for issuing Information Bulletin #1 on this topic, but help is needed and a few half-bricks won't do much harm to the head of an old hand of Irish origin!

Seven items have been selected for this evaluation because of their comprehensiveness, usefulness and general applicability. They should provide a solid basis for, and familiarity with, the subject of alternative utilization of surplus educational facilities.

1. Corman, Linda. Community Education in Canada: An Annotated Bibliography. OISE Bibliography Series No. 2, Toronto, 1975.

Abstract: This is a bibliography in four parts of Canadian writings and videotapes on "community education in Canada." Chapter 1, Community Schools/Community Education, lists items which relate to theories and definitions, specific community schools in Canada, generalized approaches to developing community schools, particular projects, and the report of the Select Committee on the Utilization of Educational Facilities (Ontario). Items include discussion of both community use and community control of schools. Chapter 2 confines itself to a list of works on community use: arguments, problems and procedures, and surveys. Chapter 3 treats

community control of schools -- the pros and cons and strategies. The last chapter lists other bibliographies, including works which contain U.S. references.

Comment: This comprehensive, well-researched bibliography should be found useful by anyone involved in community use of schools, especially since it does not confine itself to the province of Ontario, but gives a country-wide perspective.

2. Select Committee on the Utilization of Educational Facilities.

Final Report. Charles E. McIlveen, Chairman. Ontario Legislative Assembly. Toronto, 1975.

Abstract: The Final Report, entitled What Happens Next Is Up to You, combines ideas and recommendations of the three interim reports with discussion of feedback received on the earlier work. Topics covered are Schools as Community Facilities, Community Schools, Community Use of Schools, Year-Round Educational Programs, and Open Education in Ontario. Final recommendations include two directly relating to surplus school space: Nos. 14 and 15 recommend community involvement prior to decisions on space utilization, school closure and sale or other disposition of school property. The other forty one recommendations are concerned with the adoption of a system of community education, planning and design of community facilities, accessibility for the physically handicapped, payment for community use of schools, planning and organization of the school year, year-round educational programs, and the establishment of a council on open education. There is a strong emphasis on public participation in planning, but not in final decision-making.

Comment: Guided by the two basic principles, Education is a lifelong pursuit, and Education is not confined to the facilities traditionally designated as educational, this report provides a comprehensive overview of advanced thinking about the utilization of educational facilities; as such it warrants a thorough reading by all persons involved in the use of surplus school space, irrespective of whether they are in total agreement with the wording and/or intent of each individual recommendation. The report also invites discussion on the extent of local community involvement in specified areas and on the advisory role played by

community school committees, which it claims is one of the shortcomings of the Ministry's Community Education Program.

3. Rideout, E. Brock, et al. Educational, Social, and Financial Implications to School Boards of Declining Enrolments. (Chapter 4: Alternative Daytime Use of Vacant School Space.) Ministry of Education, Ontario, 1977.

Abstract: Chapter 4 investigates the alternative day-time use of vacant school space when a school with declining enrolment is to be kept open. Following a preliminary survey, twenty nine schools were chosen for study from among those in which vacant space was being used for other than regular instructional purposes.

The general findings emanating from the research study are presented under these headings: (1) extent and location of vacant space (2) use of surplus space for educational purposes (3) use of surplus space by outside agencies (4) problems of alternative day-time use (5) advantages of alternative day-time use (6) leasing arrangements and (7) application process. Case studies of the alternative use of vacant space in twelve of these schools appear in an appendix to this chapter. A bibliography concludes the study.

Comment: The very detailed findings of the research study should prove most useful and informative to any individual interested in the extent and nature of alternative day-time use of vacant space in Ontario schools, and any advantages and problems associated with such use. Terms such as "vacant space", "alternative day-time use/users" are clearly defined, which is not always the case in the Select Committee's report, where some terms need clarification.

4. Rideout, E. Brock, et al. Meeting Problems of Declining Enrolment: Educational, Social, and Financial Implications to School Board of Declining Enrolment. Ministry of Education, Ontario, 1975.

Abstract: This was the final report of the first year of the contract research project: Educational, Social, and Financial Implications to School Boards of Declining Enrolment. It reports on the only completed

part of the project at that time, chiefly a series of case studies carried out to investigate the attempts of school boards to close schools. Nine cases are reported in Chapter 2. It was felt that such case studies would "enable the Ministry to draw some inferences, particularly concerning the interplay of educational, social and financial factors in controversies over the proposed closure of schools". Chapter 3 contains suggested guidelines based on the case studies and is intended for the use of boards which are apparently faced with the need to close schools. It attempts to combine the findings with information collected from board policies and from other studies on declining enrolment. Chapter 4 comprises a review of selected references related to declining enrolments, divided into the headings (1) enrolment trends (2) school size (3) costs (4) administration in the context of enrolment decline and (5) facilities. A selected bibliography appears at the end of the report.

Comment: The nine case studies should prove to be useful reading for trustees and board officials facing the possibility of school closures. The studies point to pitfalls to be avoided and give indications of the conditions under which necessary closures can be effected successfully. They also provide information for parents and community leaders to enable them to make positive suggestions on alternatives and community input into the closure/non-closure decision.

The guidelines developed from the cases and other sources should be useful as well, particularly to smaller boards.

5. Surplus School Space: Options and Opportunities. New York: Educational Facilities Laboratories, 1976.

Abstract: Surplus School Space complements the earlier EFL publication Fewer Pupils/Surplus Space (1973). It addresses itself to the complex public problem of what to do with public facilities, rather than to the single question: to close or not to close? It is a guide for community involvement in decisions on surplus school space. Options are suggested for schools which must be closed and for schools which remain open with considerable amounts of unused classroom space. Planning must be done

on a district-wide basis because the declining enrolment trend is general, but it must take into account local population trends, zoning and potential land development, the area's private schools, costs, local education needs, legal constraints and government aid and the school's role in the community. Numerous positive advantages emanate from the mixing of school and community.

Comment: This timely publication was written for a wider audience than the earlier one -- not only for school administrators and education planners/architects, but for all individuals likely to be involved in determining public policy. It serves as a valuable guide to understanding the condition of declining enrolment, the procedure which might be followed in attempting to cope reasonably with it and the options that boards could use as alternatives to the mothballing or abandonment of schools.

6. The Secondary School: Reduction, Renewal and Real Estate.

Educational Facilities Laboratories, 1976. New York.

Abstract: The third EFL report, concerned largely with the impact of declining enrolment on school facilities, deals with the future of the high schools. The coming period of declining enrolment in secondary schools could be the time for a major overhaul of secondary (and adult) education. Community use similar to that in elementary schools is one suggestion; another possibility is a far-reaching integration of school and community by means of work-study programs, including programs for adults. A suggestion for financing the new type of school is leasing to profit-making tenants who would be involved in the educational program.

Comment: To date not many communities have had to face the issue of how to utilize surplus secondary school space, but it is none too early to plan for it. This report can help communities to plan now, to consider the local conditions and to select suitable options that will vitalize the high school. It is intended as an early alert that can stimulate creative planning solutions to what otherwise may turn out to be yet another crisis in education.

7. The Parallel Use Committee: A Model of Shared
Decision-Making. The Toronto Board of Education.
Toronto, 1974.

Abstract: In general the report of the Community Planning Group on parallel use of vacant school space by non-school groups outlines the principles and priorities of community use and procedures for its implementation. The report specifies in detail (1) how in-school space would be defined as vacant (2) general and specialized resources available to parallel use programs (3) composition and formation of the local parallel use committee (key policy points) (4) procedures under which the parallel use committee would operate and integrate with other committees and the board and (5) method for evaluation of the program after a six-month trial period. Drafts of permits and agreements to be used are attached. (The policy of fee-for-service for parallel use was revised last year.)

Comment: This report should be of considerable interest to boards currently in the process of developing policy concerning the parallel (during school hours) use of surplus school space. Boards seeking a model for a fair and equitable fee-for-service policy are advised to look at the Toronto Board's recently revised version. Especially helpful is the information provided on where, when and how parallel use committees are to function for the purpose of matching vacant space with potential users taking into account both community and school needs.

* * *

The foregoing seven documents on the alternative utilization of school property are representative of how this particular issue is treated in four geographical units: Toronto, the province of Ontario, the rest of Canada and the United States. No doubt other policies and reports exist which are equally as valuable, or more useful than those selected for inclusion in this section.

Chapter 8

The Costs of Education

For almost ten years, from the early 1960's until 1972, education had the largest claim on provincial expenditures. It accounted for more than 30% of expenditure estimates in five of the six fiscal years 1966-67 to 1971-72. Since 1972 health and education have been close competitors, with the edge clearly going to health. The two together have accounted for more than 50% of provincial expenditures every year. In the estimates from the Ontario Budget 1977, education amounted to 27% of the total and health 29%. The estimated expenditure for education in 1977-78 was \$3,403 million.

It may appear inappropriate and misleading to begin a chapter on the costs of education with statements about expenditures, but we actually know very little more about the costs than what our financial records tell us about expenditures.

Now that we are some years removed from the time when efforts to measure the returns (benefits) to educational expenditures (investments) were in vogue, it seems to be that even our earlier confidence in our ability to measure the costs of education was not warranted. As the pages that follow should demonstrate, most efforts at specifying and analyzing the costs of education turn out to be, upon close examination, studies of our behavior pertaining to spending for education.

It is our inability to speak with conviction about the costs of education that is the crux of our problems related to declining enrolments. The changes in the total costs and unit costs of education that will take place along with enrolment changes will be determined as much by policy behaviour as by enrolments. This was no less so when enrolments were increasing. It is for that reason that it is no simple task to interpret the history of total and unit costs during the period of expansion in terms that will help us anticipate and prepare for total and unit costs under conditions of declining

enrolments.

It is not surprising that there is a better developed body of literature describing the social determinants of education expenditures than the physical ones. It is an integral part of a larger body of literature describing the sociological determinants of public expenditures. Nevertheless, there does exist a physical phenomenon underlying the policy phenomenon that is public education. ("Physical" in this instance refers to the use of land, labour and capital, and it would be appropriate to substitute "economic" or "engineering" for "physical". What is needed is a word that is approximately opposite to "behavioural".) Moreover, sustained efforts have been made to study the physical phenomenon and there exists a corresponding body of literature. It is especially difficult to parcel out the physical determinants of the development of education and education costs. Interestingly, however, there exists a peculiarity of education that somewhat simplifies the task of studying it as a physical phenomenon.

Education is a striking example of a class of industries that can be described as nonprogressive. These are the industries not characterized by rather constant increases in output per unit of labour and by concomitant decreases in unit costs. There is nothing pejorative about the term nonprogressive here. Some industries that many of us would call sophisticated fit the description. There are some progressive industries most of us would consider nonsophisticated. Farming and the manufacture of automobiles, indeed manufacturing generally, are good examples of progressive industries. Teaching at all levels, nursing and social case-work are good examples of nonprogressive industries. Note, however, an important difference between nursing and case work or teaching. Nursing is not a proximate simile for the health industry, it refers only to a very labour intensive set of activities in a larger industry, all of which cannot be described as nonprogressive. Social case-work, or just case work, is a closer simile for social work as an industry. It is a set of labour intensive activities that make up a large part of the total activities of that

industry. Teaching is very nearly a simile for education as an industry, elementary-secondary education in particular. It is a set of labour-intensive activities that make up most of the activities of the school system.

It is true, of course, that education is potentially a progressive industry, one in which broadcasts, computers and a host of electronic devices might replace teachers. So far as elementary-secondary education is concerned, such replacement seems most unlikely. If we defined the outputs of education in units of some measured performance (mathematical or linguistic ability demonstrated on examinations, perhaps), we would be freer to substitute capital for labour. We do not define education outputs that way. We define them in terms of time, student years most often (and we are not disturbed by the fact that this could as well be taken as an input measure).

If we were suddenly to make the happy discovery that we can now teach children in six years the "intellectual" knowledge they have been learning in school in twelve years, few of us would argue that if we substitute six years of the new teaching for twelve years of the old, students would be getting the same service from the system. We would think that they were short changed by six years. This is to say that we do not have the same concern for, or appreciation of technological change in education that we do in other industries. It is this peculiarity that was referred to above as somewhat simplifying the task of studying the education production process as a physical phenomenon.

This concern for process rather than outputs characterizes both the education industry and our analyses of it. Consequently, if studies of variations in physical processes are intended to help us understand what causes variations in unit costs, the studies must concentrate on "economies of scale". This is not to say that students of processes and costs relationships do not concern themselves with quality. Their concern is more for variations in quality of inputs than for quality of outputs. In the reports of most such studies, the reader is allowed to judge for himself whether the differing qualities of inputs are

related to any output differences or to variations in the educational experience.

Economies of Scale

Economies of scale is a term that suggests great enterprises and mass production. To Canadians it frequently connotes huge operations producing for equally huge American markets, and benefiting from lower production costs than can be achieved by firms limited to Canadian markets. Industries and plants enjoy economies, or declining unit costs, as they approach the scales of operation associated with mass markets. However, some industries reach a point where increased production can be had only at increasing unit costs. The petroleum industry in North America claims to face that situation. It is even probable that all industries face increasing unit costs, or diseconomies of scale, at some level of production. Apparently plants that are part of industries still enjoying economies of scale often experience diseconomies of scale.

It is difficult not to assume that for any production process at plant level, whether a steel plant or a school, there will be some scale of operation below which any decrease in the units produced (or processed) will increase unit costs; and some scale beyond which any increase in the units produced will increase unit costs. In effect, this produces a U-shaped line indicating the relationships between unit costs and scale of production. Most efforts to study economies of scale focus upon determining the points on the line where significantly changing unit costs occur.

Studies of the relative unit costs of large and small schools, and of the relative financial feasibility for "program enrichment" for schools of different sizes, have been popular undertakings for students of education for a half century at least. They may be said to constitute the rationalizations for the successive waves of consolidation and amalgamation that have characterized the reorganization of education on this continent over the last several generations. However, they have not always, by any means, been conducted in agreement with the

standards and procedures associated with studies of economies of scale in some other industries. Donald Dawson, who has undertaken several studies of economies of scale of schools (and boards) in Ontario, has recently written that "the study of economies of scale in public service industries is a scholarly activity of relatively recent origin. In the case of education, in particular, it is less than two decades ago that Hirsch did some of the original work in economies of scale".¹

Dawson also points out that it is not generally agreed just what expenditures to include in these studies. Transportation costs, capital outlays, debt service and police, fire and other municipally provided services have not always been treated the same.

Not surprisingly, it is far from uncommon for two or more competent scholars to produce significantly different assessments of costs and scale relationships when studying the same organization or system. In summarizing past studies of economies of scale, Dawson says:

In general, these studies divide themselves between studies of school boards (companies) and school (plants) in various jurisdictions. Unfortunately, most fail to allow for differences in school quality. Generally, the results indicate that at the board level there appears to be evidence of economies of scale up to a point. At the school level the evidence is much more positive in exhibiting the existence of economies of scale. Conversely, and more importantly for the purposes of this paper, it should be noted that this implies that as schools become smaller there are large diseconomies of scale after enrolment declines past the minimum efficient scale (p. 7).

The general findings from this research are related to Ontario by reference to two pieces of his own work, one a study of Ontario schools in 1964, the other a study (by D. A. Dawson and K. W. Dancy) of Ontario schools in 1970. The former is a study of the system prior to the 1969 consolidation and reorganization of the boards, the latter of the post-consolidation system. The first study measures school outputs

¹D. A. Dawson, Economies of Scale and Cost-Quality Relationships in Elementary and Secondary Schools--A Survey. A paper prepared for the Commission on Declining School Enrolments, February, 1978, p. 3.

by attendance (Average Daily Attendance, ADA), and by ADA adjusted by two different indexes of quality. The study deals only with secondary schools. In the pre-consolidation Ontario system there existed a large number of boards operating only one secondary school. These single-school boards were taken as proxies for schools. The results of the study indicated the existence of "continuing economies of scale or constant returns to scale" (p. 9). Such indications of economies of scale were less clear in the case of the examination of all boards.

The second study deals with both elementary and secondary schools in the post-consolidation period. Again the measure of school output is adjusted by a quality index, this time based on a rating of schools according to average scores attained on three SACU (Service for Admission to College and University) tests. The resulting school indexes were used to construct an index of "quality weighted school board output." The results indicated economies of scale at the secondary level for boards up to a size of 4,000 pupils. Beyond 4,000 pupils the results differ "depending on whether raw or quality-adjusted data are used. The raw data indicate some diseconomies beyond the 4,000 pupils level. The quality-adjusted data suggest constant returns to scale. At the elementary level little evidence of economies of scale was found" (p. 26).

Dawson acknowledges an expectation of his reader's "lack of complete satisfaction with the comprehensiveness and consistency of the results presented..." (p. 14). An important point remains to be made about his work, however. It constitutes an expert, sustained effort to exploit the data on economies of scale in education in Ontario. The purport of his work is that the generalizations he offered above about the results of the literature on economies of scale research done elsewhere apply to education in Ontario also.

In Chapter 5 of this report Edward Hickcox observes that "school systems in Ontario for the most part are large, as a result of the reorganization of 1969. In no other jurisdiction in North America are there as many systems with pupil populations of more than 20,000."

Generally speaking, in light of their size, it is not to be expected that diseconomies of scale will be a problem to boards of education in Ontario.

However, boards must be prepared to face diseconomies, or increasing unit costs, associated with declining enrolments at the plant level except in cases of schools now operating at levels above their optimum capacity. The literature suggests that the increasing unit costs will be modest over some considerable range below the point of optimum capacity, and that there will likely be some point beyond which unit costs will increase very rapidly with declining enrolments. The literature on economies of scale may provide administrators with some insights to the probable point at which unit costs will increase with intolerable rapidity. But they are more likely to acquire useful insights from observing schools in their own and neighbouring boards. In any event, every decision to close a school will be an independent episode. The economies involved will depend upon peculiarities of the plant itself, the geographical relationship of it to other schools and the distribution of the pupil population. And, as was made very clear in Chapter 4, the point at which it will not be financially tolerable to keep the school open will be in large measure a function of the diversification of programs that parents and the board demand.

Teachers and Conditions of Employment

The point was emphasized in Chapter 1 that levels of education expenditure are determined by that aspect of our collective behaviour we call public policy making. In that same chapter the point was made also that we in this province are not now enjoying such environmental conditions as rapidly increasing government expenditures, increasing government employment particularly of university graduates and satisfying increases in real personal disposable income per person and per worker that accompanied the expansion of the teacher force. Under conditions that are not emerging for teachers, it does not seem probable that they will do as well in negotiating salary raises in the next decade

as they did in the past decade. In large measure their ability to negotiate improvements in their real and relative wages will be determined by the power of their organizations to bargain collectively and by the effectiveness of their organizations as lobbyists.

There exists no logical bases on which to project future salary adjustments under these conditions. Some points will, however, be made in the section to follow about cost implications of the salary structures in education and of the pension plan for teachers in this province. But it seems most appropriate to follow the above discussion of economies of scale with some statements on the conditions of teacher employment, in particular on the changes of those conditions associated with the recent history of teacher-board negotiations and their likely effects on the abilities of boards to minimize unit costs when accommodating enrolment changes.

In a recent study by John Kervin of teacher/board contracts for the years 1975-76, 1976-77 and 1977-78, it is pointed out that:

Within Ontario there is substantial variation among conditions-of-employment clauses in teacher-board collective agreements. The differences are based on (1) the matters which are included in the agreements (comprehensiveness) and (2) the nature of the provisions (specificity and alternative stipulations). The significance of these is, first, that they often have direct cost implications, and second, that they often affect the amount of flexibility a board may have in dealing with staffing as enrolments decline. In general, the less flexibility, the greater the costs are likely to be for a board, since it may not be able to staff with maximum efficiency. On the other hand, the more restrictions, the greater the protection of teachers' rights, jobs, and welfare. This conflict between reducing costs on the one hand and natural justice on the other is evident in many of the arguments that both sides bring to the bargaining table when discussing conditions of employment.²

²J. B. Kervin, Declining Enrolments and Teacher-Board Negotiations: Bargaining Conditions of Employment, a report prepared for the Commission on Declining School Enrolments, January, 1978, p. 2.

In describing the contract clauses most relevant to declining enrolments, Kervin offers three categories of clauses: "...those that affect staffing needs directly, those that affect staffing needs indirectly, and those that affect staffing flexibility" (p. 3).

Under Directly Related Causes he places clauses dealing with pupil-teacher ratios and class size. Under Indirectly Related Causes he places clauses dealing with instruction load and leave provision. Under Staffing Flexibility Clauses he places surplus-redundancy clauses and management rights clauses.

Dealing with contracts for 1977-78 only, he shows the incidence of clauses he regards as relevant to declining enrolments in Table 8.1.

TABLE 8.1

PERCENTAGE OF AGREEMENTS (N=158) WITH CLAUSES RELEVANT
TO DECLINING ENROLMENTS (1977-78)

| <u>Provision</u> | <u>Incidence</u> |
|---------------------------|------------------|
| Pupil-teacher ratio | 35% |
| Class size | 24 |
| Instructional load | 26 |
| Sabbatical/training leave | 84 |
| Surplus-redundancy | 67 |
| Management rights | 37 |

Taken from J. B. Kervin Declining Enrolments and Teacher-Board Negotiations. Bargaining Conditions of Employment, a report prepared for the Commission on Declining School Enrolments in Ontario, January, 1978, p. 4.

In regard to the surplus-redundancy clauses specifically, Kervin offers these observations:

Surplus-redundancy clauses are among the most important of those relevant to decreasing enrolments...this report will use the terms interchangeably to mean that a teacher's services are no longer needed as a result of either declining enrolments or the termination of a course or program. Clauses dealing with surplus teachers occur in approximately two thirds of the current collective agreements.

The amount of variation found in these clauses is very great...some agreements merely state that the board shall "peruse, consider, and decide" matters relevant to surplus teachers, while other clauses specify in precise terms which teachers shall first be declared redundant in the event of a surplus and what alternative possibilities are to be made available to such teachers, often extending over several years.

Two types of surplus-redundancy clauses bear on the question of board flexibility. The first type indicates criteria for determining who is to be declared surplus. The second specifies options open to surplus teachers.

Teacher-board agreements vary widely in the type and number of factors to be taken into account in deciding who is redundant. Seniority is by far the most common criterion. It is mentioned in over 90 percent of the surplus-redundancy clauses. The other major factors, in approximate order of their use, are qualifications (e.g., university degrees), type of contract (permanent or probationary), and subject area taught. Of these four, the first three have immediate cost implications. All three imply that boards will terminate only the newer teachers, and therefore will recover only the relatively lower salaries of such teachers. (p. 13).

Kervin also undertakes to describe trends in the incidence and content of clauses negotiated by teachers and boards over the past three years, and he discusses what future directions the negotiation of conditions of employment might take:

(Table 8.2) shows the percentage of agreements with PTR* and class size provisions in the past three years for each type of board--elementary, secondary, and separate.
(Some 15 agreements from other boards (e.g., remote areas

* PTR is pupil-teacher ratio.

and Canadian Forces bases) have been excluded from the analysis in this report. . Of the 200 possible agreements each year, one is unavailable for 1976-77, and 42 for 1977-78.) The upper portion of the table shows that the percentages of agreements containing at least one of the two types of clauses increased sharply in 76-77, and then tended to level off in the 77-78 agreements. Looking at each type of clause individually, the percentages show that PTR clauses were more frequent in 76-77 than in the preceding year, but that since then their incidence has not substantially increased. Attention seems to have shifted to class size provisions. Here elementary and secondary agreements show a sharp increase in incidence in 77-78. For separate school agreements, the frequency of class size clauses has not increased, and both types of clauses are less frequent than in elementary and secondary agreements. To extrapolate, the incidence of class size provisions seems likely to remain at about current levels in the coming year, following the pattern of PTR clauses--a sharp increase followed by a relative leveling off. Alternatively, it might be the case that attention alternates between the two: PTR clauses are a focus of attention one year, class size clauses the next. If this is true, then the coming year should show another increase in the incidence of PTR clauses. In any event, it seems that secondary teachers will continue to have the most success in adding PTR or class size clauses, and that separate school teachers will fare worst. (pp. 18-20)

TABLE 8.2

PERCENTAGES OF AGREEMENTS WITH PTR AND
CLASS SIZE CLAUSES

| | | <u>75-76</u> | | <u>76-77</u> | | <u>77-78</u> | |
|--------------------------|------------|--------------|------|--------------|------|--------------|------|
| | | % | No.* | % | No. | % | No. |
| PTR and/or class size | Elementary | 25 | (76) | 40 | (75) | 45 | (62) |
| | Secondary | 41 | (76) | 54 | (76) | 60 | (62) |
| | Separate | 10 | (48) | 23 | (48) | 21 | (34) |
| PTR | Elementary | 18 | (76) | 31 | (75) | 32 | (62) |
| | Secondary | 29 | (76) | 42 | (76) | 47 | (62) |
| | Separate | 4 | (48) | 19 | (48) | 18 | (34) |
| Class Size | Elementary | 16 | (76) | 19 | (75) | 27 | (62) |
| | Secondary | 20 | (76) | 22 | (76) | 29 | (62) |
| | Separate | 8 | (48) | 6 | (48) | 9 | (34) |

*Total number of agreements analyzed.

Taken from Kervin, 1978, p. 19.

Kervin identifies surplus/redundancy clauses as being a salient aspect of trends in conditions of employment agreements:

(Table 8.3) shows the percentages of collective agreements containing surplus-redundancy clauses by year and board type. The figures indicate dramatic increases in the incidence of such clauses, particularly for separate school agreements. These rather noticeable trends suggest that teachers have invested most of their efforts at the bargaining table in this area rather than in those clauses related to staffing, leaves, or instructional load. This is not really surprising, since surplus and redundancy are the areas in which the effects of declining enrolments will be felt most. In other words, it appears that teachers have been more concerned with who will be declared surplus and what to do when teachers are surplus rather than with increasing the demand for positions so as to prevent or reduce redundancy.

On the other hand (Table 8.3) also shows that boards have been equally active in pursuing management rights clauses³ ...It would appear that each side has made significant bargaining gains, although the boards' lie in an area with symbolic rather than direct cost implications.

Before this conclusion can be accepted, one would be wise to examine the actual content of the surplus-redundancy provisions. As far as identifying surplus teachers is concerned, seniority is the basic factor with cost implications (*italics added*). It appears in almost all agreements having a surplus-redundancy provision.... (Table 8.4) examines the incidence of four options in rough order of increasing costs to boards: severance pay, sabbatical, retraining allowance, and priority transfer (if another position is open). The figures in this table paint a very different picture compared to the (Table 8.3) statistics for the incidence of surplus-redundancy clauses. No significant increases in the proportion of agreements offering severance payments to surplus teachers have occurred in the past two years. The same is true for agreements mentioning sabbatical leaves as an option. Retraining periods (with varying amounts of board support have shown a slight increase in incidence for elementary and secondary boards....)

The one option which shows advances by the teachers is priority transfer. Its incidence in elementary agreements has increased to the level reached earlier by secondary teachers--slightly over one half....

...the priority transfer provision is among the most costly to boards since they are obliged to staff a position with a teacher who probably commands a higher salary than would be the case if they were totally free to hire, and this salary difference continues as long as the teacher remains with the board. Why then is it the most popular of the four options presented in (Table 8.4)? The answer is that boards bear this cost only if another suitable vacancy occurs for the redundant teacher. Thus there is an element of chance in this provision--if a vacancy to which the surplus teacher can be transferred does not exist, the board loses nothing (p. 32).

³Kervin elsewhere notes that management rights have symbolic significance as signs that boards are concerned about retraining administrative flexibility.

TABLE 8.3

PERCENT OF AGREEMENTS WITH SURPLUS-REDUNDANCY AND
MANAGEMENT RIGHTS PROVISION

| | | <u>75-76</u> | | <u>76-77</u> | | <u>77-78</u> | |
|------------------------|------------|--------------|------|--------------|------|--------------|------|
| | | % | No.* | % | No. | % | No. |
| Surplus- Redundancy | Elementary | 37 | (76) | 63 | (75) | 66 | (62) |
| | Secondary | 62 | (76) | 74 | (76) | 74 | (62) |
| | Separate | 35 | (48) | 67 | (48) | 85 | (34) |
| Management Rights | Elementary | 24 | (76) | 32 | (75) | 32 | (62) |
| | Secondary | 25 | (76) | 38 | (76) | 34 | (62) |
| | Separate | 17 | (48) | 48 | (48) | 53 | (43) |

*Total number of agreements analyzed.

Taken from Kervin, 1978, p. 29

TABLE 8.4

CONTENT OF SURPLUS-REDUNDANCY PROVISIONS:
PERCENTAGE OF AGREEMENTS WITH OPTION

| | | <u>75-76</u> | | <u>76-77</u> | | <u>77-78</u> | |
|-------------------------|------------|--------------|------|--------------|------|--------------|------|
| | | % | No.* | % | No. | % | No. |
| Severence Payment | Elementary | 20 | (76) | 21 | (75) | 23 | (62) |
| | Secondary | 30 | (76) | 36 | (76) | 37 | (62) |
| | Separate | 0 | (48) | 0 | (48) | 0 | (48) |
| Sabbatical | Elementary | 3 | (76) | 1 | (75) | 2 | (62) |
| | Secondary | 11 | (76) | 8 | (76) | 5 | (62) |
| | Separate | 0 | (48) | 0 | (48) | 0 | (34) |
| Retraining Allowance | Elementary | 3 | (76) | 12 | (75) | 13 | (62) |
| | Secondary | 11 | (76) | 26 | (76) | 26 | (62) |
| | Separate | 0 | (48) | 0 | (48) | 0 | (34) |
| Priority Transfer | Elementary | 24 | (76) | 40 | (75) | 56 | (62) |
| | Secondary | 53 | (76) | 62 | (76) | 63 | (62) |
| | Separate | 10 | (48) | 29 | (48) | 29 | (34) |

*Total number of agreements analyzed.

Taken from Kervin, 1978, p. 31.

In summary, it is appropriate to say that Kervin's study justifies the claim that conditions of employment for teachers, as these are specified in teacher/board contracts, will be an important factor in policy-making to accommodate changing enrolments. They will also be an important influence on unit and total costs. Of most interest to us in the final section of this chapter will be the role of seniority in determining terminations.

Teachers' Salaries and Retirement Benefits

The price of current teachers' services and the costs of maintaining the teacher force in retirement are important factors in determining what the resulting unit and total costs of our educational services will be.

The structure of age, experience and qualifications of the active teacher force, and the choices teachers will make about when they will retire, are important on only somewhat less direct influences on the unit and total costs of education. These variables will respond to developments that are largely beyond the influence of policy makers. The effects these variables will have on education costs will, of course, be determined in large measure by policy decisions to keep salary systems and superannuation plans as they are, or decisions to change them.

Table 1.11 presented the history of median salaries of Ontario teachers from 1944-45 to 1975-76. It rather dramatically demonstrates the phenomenon of teacher-salary development in the post-World War II period, and forcefully makes the point that continued progression is to be expected. The simplest approach to projecting the major component in the costs of education (the salary bill) for the province is to:

- (i) project future values of mean salaries (using the same basic data as that used to compute median salaries);
- (ii) project future pupil/teacher ratios (comparable to those in Table 1.12);

- (iii) project future enrolments (as reported in Chapter 3);
- (iv) calculate the future teacher force $\left(\frac{\text{the outcomes of (iii)}}{\text{the outcomes of (ii)}}\right)$;
- (v) calculate total salary bills (the outcomes of (iv) X the outcomes of (i)).

No projections of teacher salary bills (the main component of education costs) or of total education costs are being presented at this time, though several projects for this Commission are now underway that will facilitate such projections, at the provincial level and at the board level (for some or all boards).

At this point the only projections being presented that may be said to be of immediate relevance to estimating the future costs of the provincial elementary/secondary education system (i.e., of total board expenditures) is a ten-year projection of provincial assistance (grants) of the provincial government to school boards. These projections are from D. K. Foot's Resources and Constraints: Public Education and the Economic Environment in Ontario, from which much of the material in Chapter I was taken.

Foot makes these very important observations and projections about provincial government grants to municipalities and school boards:

Since 1973 provincial payments to local governments and agencies* have been governed by the "Edmonton Commitment". Essentially this Commitment has guaranteed that provincial transfers to local governments and agencies would grow at the same rate as provincial budgetary revenues. The base year was chosen to be fiscal 1973-74. According to the Provincial Treasurer, the province has transferred almost \$13.7 billion out of budgetary revenues of \$46.2 billion (or 29.6 per cent) over the past five years. Other assistance which includes payments in lieu of taxes, tax compensation grants, employment incentive payments and payments into the Teachers' Superannuation Fund, has brought the level of total Ontario payments to local governments and agencies to \$15.4 billion since 1973. The average annual growth of these transfers has been in excess of 14 per cent, although the rate of increase has declined rapidly since the peak year of 1975-1976.

* Local agencies include homes for the aged, children's aid societies, health agencies, conservation authorities and library boards.

These total provincial transfers to local governments and agencies over the past five years have been distributed as follows:

| | Per cent |
|-----------------------------------------|----------|
| Education | 50.3 |
| Transportation | 12.9 |
| Social Assistance | 5.0 |
| Other Conditional | 2.6 |
| Total Conditional | 70.7 |
| Total Unconditional | 10.7 |
| Payments to Agencies | 7.4 |
| Other Assistance | 11.2 |
| (of which Teachers' Superannuation Fund | 8.4) |
| Total | 100.0 |

Conditional payments have accounted for slightly over 70 per cent of total transfers and by far the largest component of these are transfers to school boards which, by themselves, have accounted for over half of total transfers. The average annual growth of these payments has been roughly half that of "all other transfers" (9.7 per cent compared to 20.7 per cent - averaging 14.4 per cent). The pattern of growth has been somewhat similar with the exception of the current year when the growth in educational transfers is expected to increase to 10.9 per cent while the growth in "all other transfers" is estimated to decrease to only 0.4 per cent. Finally, it should be noted, that "other assistance" also includes an education related component, namely payments into the Teachers' Superannuation Fund. These payments have totalled \$1.296 billion over the past five years (or 8.4 per cent of total transfers over the period). The growth in these payments is dictated by the actuarial requirements of the fund which, in turn, are influenced by teacher salary awards. Not surprisingly, therefore, there was a large increase (of \$100 million or over 42 per cent) in these payments in 1976-77. The estimated payments into this fund for fiscal 1978-79 amount to \$262 million.

The short-term outlook which underlies the commitments for fiscal year 1978-79 has been recently outlined by the Provincial Treasurer (in a speech to the Provincial-Municipal Liaison Committee on September 16, 1977). The speech

contained proposed "amendments" to the Edmonton Commitment by, basically, broadening the base on which assistance is to be assessed. The major new inclusion (accounting for roughly 70 per cent of the new items) is payments into the Teachers' Superannuation Fund. By including these new items under the Commitment, the Treasurer has been able to scale down provincial payments to local governments for 1978-79, from a projected \$3.748 billion under the previous formula to \$3.713 billion under the "broadened" formula, or a difference of \$35 million. The new projection represents zero growth from the previous year under the "broadened" formula and an actual decrease in total transfers when compared to the previous formula. At the same time, the Provincial Treasurer announced a provincial commitment of a total of \$4.332 billion (or an increase of 8 per cent) in transfers for 1979-80 on the basis of achieving balance under the "Broadened Edmonton Commitment".

These proposals contain the following implications for assistance to school boards and local governments and agencies in the province:

| | \$ billion | | | Per Cent Increase |
|--------------------------------------------------------|------------|---------|----------|-------------------|
| | 1977-78 | 1978-79 | Increase | |
| <u>Assistance to School Boards</u> | | | | |
| General Legislative Grants | 1.880 | 1.970 | 0.090 | 4.8 |
| Teachers' Superannuation | 0.262 | 0.331 | 0.069 | 26.3 |
| Total | 2.142 | 2.301 | 0.159 | 7.4 |
| <u>Assistance to Municipalities and Local Agencies</u> | | | | |
| | 1.571 | 1.722 | 0.151 | 9.6 |
| Total Transfers | 3.713 | 4.023 | 0.310 | 8.3 |

Consequently, the short-term outlook for the education sector in the province is for 10.9 per cent growth in legislative grants (or a 5.4 per cent growth in total assistance to school boards including superannuation payments) in 1977-78 and a 4.8 per cent growth in legislative grants (or a 7.4 per cent growth in total assistance) in 1978-79. Given the inflation projections outlined in section 2 above, these grant payments represent a real increase of approximately 3 to 4 per cent

in 1977-78 and a real decrease of approximately 2 to 3 per cent in 1978-79.

The medium-term outlook is even less promising. As noted above⁴ education expenditures are projected to average in excess of 10 per cent (a real increase of approximately 3 to 4 per cent) over the next decade. However this total includes post-secondary education expenditures, expenditures on special and cultural education, Ministry administration expenditures and contributions to superannuation funds, as well as grants to school boards. The growth in the latter category, which reflects amongst other things the projected declining ratio of school-age children in the provincial population, is projected to grow only slightly until approximately 1981, after which a decline is projected (until 1986). More specifically the medium-term outlook for school board assistance (excluding superannuation payments) can be summarized as follows:

| | Per Cent Average Annual Growth Rate | |
|---------------------------------|-------------------------------------|----------|
| | 1977-82* | 1982-87* |
| General Grants to School Boards | 2.2 | -0.1 |
| Rate of Inflation in Government | 7.4 | 8.1 |
| 'Real' Change (approx.) | -5.2 | -8.2 |

*1977 refers to fiscal year 1977-78, etc.

Consequently, over the next decade these projections suggest that school boards in Ontario should be planning for negative 'real' growth in their receipts from the provincial government. (pp. 23-28)

These projections for negative "real" growth in the grants from the province to boards suggest that we may indeed be at a turning point in the evaluation of board expenditure behaviour. It seems appropriate to let our projections of actual expenditure behaviour wait upon the completion of several projects, now under way, intended to increase our understanding of the changing costs of teacher labour.

⁴Table 1.13 of this report.

This is, in effect, to say that the estimation of future changes in mean teacher salaries (step (i) in the above mentioned approach to estimating the future teacher salaries bill) may be particularly challenging as boards adjust to what may be a quite different role in their partnership with the province in education finance.

A dynamic element in forecasting both the costs of teachers' salaries and costs of the teachers' superannuation is the age, experience and qualifications of members of the teacher force.

Peter Atherton, in a recently completed study, *Declining Enrolments and the Aging Teaching Force* (prepared for the Commission) examines the phenomenon of the aging of the young teacher force, largely recruited in the 1960's, in terms of challenges they present to boards and in terms of the potential burden they constitute for the superannuation system.

In Tables 8.5 and 8.6, two presentations of the age distribution of the teacher force are offered:

TABLE 8.5

AGE DISTRIBUTION OF THE ONTARIO TEACHING FORCE
BY SECTORS FOR 1974-75 (SEPT. 1975)

| | ELEMENTARY | | | | SECONDARY | | | |
|--------------|---------------|---------------|---------------|--------------|---------------|--------------|---------------|--------------|
| | Male | Female | Total | % | Male | Female | Total | % |
| 19 & under | 14 | 168 | 182 | .3 | 5 | 4 | 9 | |
| 20 - 29 | 9,067 | 22,276 | 31,343 | 52.5 | 6,530 | 5,017 | 11,547 | 35.1 |
| 30 - 39 | 6,684 | 9,395 | 16,079 | 26.9 | 9,493 | 2,208 | 11,701 | 34.6 |
| 40 - 49 | 2,139 | 5,199 | 7,338 | 12.3 | 4,933 | 1,516 | 6,449 | 19.3 |
| 50 - 59 | 703 | 3,206 | 3,909 | 6.5 | 2,148 | 1,049 | 3,197 | 9.5 |
| 60 - 65 | 84 | 610 | 694 | 1.2 | 188 | 132 | 320 | 1.0 |
| 66 | | 6 | 6 | .1 | 2 | 2 | 4 | |
| Not reported | 34 | 108 | 142 | .2 | 86 | 64 | 150 | .5 |
| | <u>18,725</u> | <u>40,968</u> | <u>59,693</u> | <u>100.0</u> | <u>23,385</u> | <u>9,992</u> | <u>33,377</u> | <u>100.0</u> |

Source: Ontario Ministry of Education, Toronto, September 1975

Taken from P. Atherton, 1978, p. 2.

TABLE 8.6
AGE DISTRIBUTION OF ONTARIO ACTIVE TEACHING FORCE
AS OF DECEMBER 31, 1975

| <u>Age Group</u> | MALES | FEMALES | <u>Total</u> | <u>%</u> |
|------------------|---------------|---------------|---------------|-----------|
| | <u>Number</u> | <u>Number</u> | | |
| Under 25 | 1,330 | 6,749 | 8,079 | 7 |
| 25 - 29 | 11,081 | 22,058 | 33,139 | 28 |
| 30 - 34 | 11,831 | 12,735 | 24,566 | 21 |
| 35 - 39 | 9,161 | 8,875 | 18,036 | 15 |
| 40 - 44 | 5,941 | 6,173 | 12,114 | 10 |
| 45 - 49 | 4,319 | 4,914 | 9,233 | 7 |
| 50 - 54 | 2,940 | 3,669 | 6,609 | 6 |
| 55 - 59 | 1,689 | 2,617 | 4,306 | 4 |
| 60 and over | 930 | 1,908 | 2,838 | 2 |
| | <hr/> 49,222 | <hr/> 69,698 | <hr/> 118,920 | <hr/> 100 |

Source: Actuarial Report on the Teachers' Superannuation Fund as of December 31, 1975.

Taken from P. Atherton, 1978, p. 3.

Table 8.5 shows only those teachers in established teaching positions in September, 1975. Table 8.6 shows all persons who contributed to the Superannuation Fund for twenty days or more of employment in the system. The table also includes some contributors to the superannuation fund working in other systems or institutions (in general, persons who transferred to those establishments from the elementary/secondary school system).

In 1975 almost 80% of the elementary teaching force was less than 40 years of age, and close to 70% of the secondary teaching force was under 40. Table 8.7 shows that the experience distribution was what might be expected from such a young work force. In the elementary system, 65% had 10 or fewer years of experience, in the secondary system, 63% had 10 or fewer years of experience.

TABLE 8.7

EXPERIENCE DISTRIBUTION OF THE ONTARIO TEACHING FORCE
BY SECTORS FOR 1974-75

| Total Teaching Experience, Years | Male | Female | Total | % | Male | Female | Total | % |
|-------------------------------------------|--------|--------|--------|-------|--------|--------|--------|------|
| Beginners | 754 | 1,766 | 2,520 | 4.2 | 772 | 620 | 1,392 | 4.2 |
| 01 - 10 | 10,746 | 25,442 | 36,188 | 60.0 | 13,084 | 6,576 | 19,660 | 58.9 |
| 11 - 20 | 5,430 | 9,302 | 14,732 | 24.6 | 7,315 | 1,952 | 9,267 | 27.7 |
| 21 - 30 | 1,495 | 3,410 | 4,905 | 8.2 | 1,850 | 619 | 2,469 | 7.4 |
| 31 - 40 | 269 | 974 | 1,243 | 2.0 | 348 | 223 | 571 | 1.7 |
| 41 - 50 | 31 | 74 | 105 | | 16 | 2 | 18 | |
| 51+ | | | | | | | | |
| Not Reported | | | | | | | | |
| | 18,725 | 40,968 | 59,693 | 100.0 | 23,335 | 9,992 | 33,377 | 99.9 |

Source: Ontario Ministry of Education, Toronto, September 1975

Taken from P. Atherton, p. 5.

Atherton touches upon many staffing and managerial problems associated with the expected development of the age-experience structure of this teacher population. We will consider here only some of those most pertinent to changing costs. "Current negotiated salary scales provide automatic increments for experience. The effect of such increments is to increase total annual salary costs by more than that which would be suggested by negotiated percentage increases" (p. 10). He is referring, of course, to a condition of many or most teachers having fewer than the ten or twelve years of experience associated with the top "experience level" on most salary grids. He observes that in a very few years most teachers will be at or near the top experience category. The result will be a modification and perhaps the end of average salaries going up more rapidly than negotiated increases.

Atherton notes, however, that some of the reduction of cost escalation to be expected when the bulk of the teaching force reaches the top experience category may well be countered by developments concerning academic qualifications. Teachers are typically paid for years of academic/professional education up to the equivalent of seven years beyond grade 12. A young teacher force, particularly under the competitive conditions now emerging, might be expected to increase its average academic qualifications quite relentlessly for some years to come. This condition might be expected to have the most important financial consequences for elementary teachers, 46% of whom in 1975 had less than the four years of academic and professional training required of all teachers entering the progression after 1973 (p. 12).

Since it is possible for a teacher to move horizontally and vertically on salary grids at the same time, it may be perceived that even when the bulk of the profession has moved beyond experience increments, they may become eligible for additional salary increases for educational qualifications. Whilst it is possible, therefore, to forecast that the substantial salary cost escalation as a consequence of experience may end by 1985, cost escalation as a consequence of increased qualification may continue. (p. 14).

Atherton's observations on the salary consequences of an aging teaching force are probably very close to what most of his readers would expect. In the part of his report dealing with superannuation, it is probable that most of his readers, though already aware of the associated problems, will in fact be shocked by the dimensions of the future expenditure implications. He is no less impressed than is Foot by the present and future claims of the Teacher Superannuation Fund on total provincial expenditures and the education component thereof.

...the total payment required from government for 1976 (neglecting the effect of salary increases) to keep the fund actuarially sound would be some \$252 million. For comparative purposes it is worth noting that in 1976 total grants to school boards were some \$1,705 million.* Thus the required Provincial contribution to the Superannuation Fund amounted to almost 15 percent of total school grants (Atherton, pp. 39-40).

*Ministry of Education, Education Statistics Ontario, 1976, Toronto, Queens Printer, 1977, p. 126.

In addition to the annual payments required to meet unfunded liabilities, the government is required to meet from consolidated revenue the cost of low pensions and cost of living subsidies granted to pensioners of the Teachers' Superannuation Fund between 1967 and 1975. In 1976-77 this payment amounted to \$25,649,400. (Atherton, p. 41)

In summary, it appears that the changing age structure of the teaching force will be associated with some inflation of average salaries, at least in the near future, and with a distribution of salaries near the top experience pay category. The effect of the age and experience characteristics of the teaching force on expenditures may well be exaggerated by the preponderance of contract clauses emphasizing seniority as the main criterion of continued employment. A further factor that will likely work to inflate average salaries is increasing academic qualifications. However, it is also plausible to assume that the salary grids, based on experience-academic credentials and to which we have become accustomed, will be modified significantly as a result of policy changes, either at the provincial or board level. The policy decisions that will determine future salary grids, will, in effect, be determining the costs of the most expensive factor used in producing education services, and, only somewhat less directly, will partially determine levels of expenditure.

But more important to efforts to forecast future educational expenditures is the newly emerging phenomenon of the province's expenditures on the superannuation system as a large and growing component of education expenditures. This is a development the results of which would be difficult indeed to predict even if the system of education finance were facing an otherwise stable future. Under the conditions that prevail it adds a new dimension of complexity to an already unpredictable set of developments. At the very least, it will force us to readdress attention to a number of issues on education costs, education expenditures and the distribution of the bills for education. In most cases they will be issues that have been "settled" for some time, and, in fact, issues that many of us thought were with us no longer.

EPILOGUE

I suppose no Commissioner should conclude even an Interim Report in this fashion, but having been in experimental work all my life I can see no reason why I shouldn't try a departure from the usual and find out what happens. Besides, I have a number of final comments to make to you, and to your Cabinet colleagues, and I wish to outline in some detail what my plans are for the remainder of my task, and then I'll finish with two leading questions which I earnestly request that you and your government seriously consider and answer before you receive my final report. Whether or not the readers may guess from this section what some of my conclusions and recommendations may be, concerns me not one whit.

As I made clear from the beginning there will be complete disclosure throughout the whole course of my investigations, save only that the formal recommendations at the end go first to you, and to you alone. And I am pleased to report that to date no one has accused me of suppressing or withholding information, although I have been chided from time to time, and not surprisingly so in these days of bland diets of half-truths and happy lies, for speaking so openly, frankly and bluntly at all our public meetings.

My first comment is something of a report of success. Thanks to the many groups who have listened so patiently to Howard Henderson and myself, the message of population change and the inevitability of declining school enrolment (of children and youths) has become accepted as one of the facts of life.

It may be a result of education in the New Math that the facts are so readily grasped, but I favour assigning credit to the widespread use of pocket transistorized calculators, which we import in such large numbers from Japan and the United States. Certainly, given the fact that the number of live births was at a new low in 1977, most quickly calculate that the small numbers will appear in grade 1 about 1983, in grade 8 and 9 around 1991 and 1992, round out secondary school in 1995 or 1996 and then show up in the labour force or at a post-secondary institution. So, the rest of this century seems well programmed for the school systems. Curiously, perhaps, the educators do not even need the pocket calculator to figure out that the babies who were NOT born in 1977 will NOT be in the schools. They are the ghost students who never were. Starting from 1960 there are nearly 40,000 per year; compared to the fertility levels of 1960, one ghost student for every real student.

I recognize full well that if I keep on stressing the errors of our ways, then fashions may change and another Baby Boom will be enjoyed. It would be worth it, even to the point of rendering all my projections and conclusions wrong.

Thanks to the coverage provided by the media, much as I may curse their garbled versions upon occasion, the general public is becoming aware — rather painfully and reluctantly, perhaps — that there is a school problem now and that what is happening in our schools (and which happened earlier, almost unnoticed, in the disappearance of so many maternity wards and hospitals, nursing and medical personnel, and the booming baby services and supplies) is merely the leading edge of the glacier of social and economic effects which is grinding inexorably forward throughout the whole of our lives as a result of the drastic and dramatic demographic changes. The question I now face from most audiences is, not whether my facts and inferences or projections are correct, but what do we do about it, and how do we learn to live in the shadow of these impending alterations in our way of life.

My second comment is to express the deep concern I feel about the psychological and emotional impact these actual and impending changes will have on our people. This is a problem, Mr. Minister,

which is going to be placed squarely in the laps of the politicians, federal, provincial, and municipal — I was about to add the international, but the wise leaders there are indeed scarcer than the proverbial hen's teeth. (I refrain from commenting on the supply at the national and provincial scene.) Certainly, this particular "baby" will be as welcome to you and your colleagues as were the proverbial products of original sin which the erring daughters in the fiction of my youth plopped in the laps of their horrified and scandalized parents.

We know very well that what we are facing now in Canada, since this generation of potential parents is not replacing itself with sons and daughters, is in the short run a winding down of the school systems throughout the rest of this century and probably well beyond the magic year 2000, and in the long term a similar winding down, through depopulation, of our country. My psychologist consultants advise me that if there are no "escape valves" provided from this closed system of contraction, the pressures of despair will cause it to explode. I believe it.

Of course, we can add large numbers of immigrants, but they will for the most part be different in race, colour and culture from those of us who now live here, and that, though not undesirable in itself, would lead to racial tension and conflict unless planned for. The whole of the developed Western World suffers the same form of shortages of people as we do, and many countries in a much more aggravated form, so they will not let their own people leave to come and build up and save our country. The developing countries, because of their uncontrolled fertility, will no doubt be very happy indeed to export their surplus supply of people. It is an explosive question to a great extent because racist attitudes lie close to the surface in many of our citizens, but politicians are going to be asked, bluntly and insistently, just what they believe should be the answer and just what they propose to do.

I'll get to the pointed questions for you in the concluding section of this part of my "epistle", but permit me now to describe my plans for the rest of my task as Commissioner.

The next stage of our work is the public hearings throughout the province, as required in my terms of reference. These begin on March 1st in Thunder Bay, and continue without a break, except for the Easter week extending from Monday, March 20, to Easter Monday, March 27, both inclusive, to the 13th of April. The period of the hearings will be continued beyond these dates, when necessary, in any part of the province where groups wish to make representations to us. A number of briefs have already been received, and these are of exceptional quality.

It is very clear that trustees, administrators, teachers and other educators are quite concerned over the implications of continued declining school enrolments, and many other groups in the several communities are equally concerned over the possible effects on this and later generations of school children. I have been very pleased to note the absence of bitter complaints and unreasonable criticisms in these documents; the emphasis is on constructive criticism and on suggestions of ways and means whereby the impact of the declines may be lessened and alternative courses of action instituted. In short, the intent is clearly to utilize this situation as an opportunity to improve and to extend our educational services, not to view what is happening as a catastrophe or major disaster requiring only retrenchment and radical surgery, in the form of firing as many teachers and other staff as possible, slashing programs to the bone and closing classrooms and schools right and left. No suggestion has as yet been made that these unfortunate circumstances of inevitable contraction be seized as the golden opportunity to cut school costs down to the level a Scrooge would recommend.

During these public hearings, in part, and immediately following them, I am having assembled for each topic specified in my terms of reference (and for a number of others under the rubric of the phrase "without restricting the generality of the foregoing" on Page 2 of the Order-in-Council).

sets of suggestions, solutions and alternatives which either have been or might be tried, and which obviously I should seriously consider as possible recommendations in my final report to you. It is my intention to provide some discussion of each of these points, organized and collated in a form somewhat resembling a final report on general topics, sub-topics, etc., and where possible indicate advantages and disadvantages, including probable costs where such can be calculated.

The compilation will be published and distributed widely, in the latter part of May, as a type of White Paper on questions, issues, policies and possible solutions to the problems which are appearing. If interest in these possible proposals is sufficiently keen, in the positive or in the negative sense, I hope to conduct further hearings, and seminars and workshops, throughout the province in a search for consensus on at least the form of guidelines needed for the major issues and problems. Complete agreement on all points would be too much to expect, of course, but I sense already pretty general agreement about many of the critical points and the paths which should be followed and types of solutions worthy of further pursuit.

In the meantime, during the hearings and throughout the rest of my work, we will issue from time to time information bulletins providing up-to-date information to all those in our province interested in our task. As you know, our first factual information bulletin, on facilities, has already been prepared and published and distributed in multilith form. Soon we expect to have more complete information about population and school enrolment projections, as I indicated in an earlier section, and these data will be analysed and issued with a commentary immediately they are received. At the same time, throughout this period, I will issue the reports of special studies commissioned by me, under the name of the author or authors in each case in accordance with the best academic traditions. This means, then, that interested groups throughout our province will be kept as well-informed as I am at all stages, so that they may from a sound base judge and criticize what I may recommend.

I regret that so much of this factual information, about our own province, other provinces and other countries has been so difficult to assemble and make available, but I have insisted that only up-to-date information be accepted and issued for general use. Conditions have changed so greatly in the last six years, as you know, that many of the reports published in earlier years are not only useless but very often definitely misleading. The delay has been frustrating, to me and to others, but I simply refuse to reach decisions and conclusions and recommend actions without the data I need. At most, I have lost a month to six weeks in the process, but that cannot be helped.

From the evidence provided in briefs, memoranda, letters and orally at the public hearings and at other times, combined with the materials compiled as that White Paper and the reactions to the suggestions and alternatives contained therein, I will begin in June to assemble my Final Report. It will not be a long report; it will contain only the major arguments and findings, and the conclusions and recommendations I have drawn from them. Again I will follow the practice of this Interim Report stage, and the White Paper stage, and issue the relevant data and other detailed information in the form of a Statistical Appendix, together with further reports of special studies I have commissioned, to accompany my final report to you or to follow it within two weeks. I will arrange to have copies of my Final Report printed and distributed widely, and a limited number of copies of the Statistical Appendix and study made available in multilithed format.

It is my intention to submit the Final Report to you during this summer, barring unforeseen delays or illness. But most readers will no doubt be able to deduce from the White Paper, and the discussions which will follow its release, what the major recommendations are likely to be, and certainly your Ministry and the school boards, and including teacher associations and the teacher training institutions, will know with a fair degree of certainty by the end of June what their course of action must be.

As a matter of fact, they know right now that I expect them to study their local situations very carefully, project the likely conditions of their own area for the next five-year period and begin development of plans which can be modified if necessary when my Final Report is issued. And I will point out, further, that I expect them to take action in many cases without waiting for the acceptance, or rejection, of my recommendations by your government. Many will have all the information and experience they need to continue to move forward; this may mean pressure will be exerted by local groups upon your Ministry and upon your government and upon the federal government, not the reverse. But that is the way I prefer it, and the only way in which I think democracy can work and thrive, by the people from the grassroots upwards to their representatives at the top of the heap of political machinery.

Now for the final two questions which I pose to you and your government, and to which I expect you to have answers ready and full agreement secured before my Final Report reaches your desk.

Questions and Issues

1. How much is a baby or child worth to Canada and Ontario and to politicians like yourself (use the term “statesmen”, if you wish)? You know as well as I do that the total population of Canada will eventually be steadily decreasing. Is this what you want, as our leaders, or that we want as those led or misled? I don’t think so. We can do something about this situation, to adjust or correct it, but it will cost plenty of money and inconvenience. Also, we haven’t much time left. Will you be prepared to act, and to act in time?
2. Just how much is our school system and its programs for our children worth to your government and to us, and exactly where does it stand in your scale of values and set of priorities, and in ours, the great, lay, unwashed public? After all, there should be some degree of sympathy and understanding in high places in your government. We did allow (remember Zwicker and the Pussy Cats?) a former Minister a large part in building the system in the first place. Besides, he has five children in his own family and with a former executive assistant with nine children still on his staff at a more senior level, there must be at least one ear at Queen’s Park which will listen, besides the pair firmly attached to your own head? Frankly, I don’t know where your government stands, or even where my (normally) beloved compatriots stand. I suspect we have become pretty damn selfish and self-satisfied during these fat years, and consider too much our own comfort and convenience. I suspect education is far down our list of priorities, especially when it comes to the dollars and cents, not to our common sense. Do we once more sacrifice the young and helpless, to add to our creature comforts? I know where I stand, even on a fixed pension which inflation is eroding at a horrifying rate. I’m prepared to repeat again our pledge of the Great Depression and the horrible World War II, that never again should our children and youth suffer what so many of us suffered then.

But my personality is such that I am unable to end on such a solemn note, which reminds me too much of the Hell-Fire and Damnation preaching I suffered from so unwillingly in my youth from the missionaries of the Foothills, who were so determined to save our benighted little souls, even if it killed us. I’m sure you won’t mind if I record here, for the record and for posterity, the pictorial Interim Report which I submitted to you, not wholly in jest, I admit, some few weeks ago. Perhaps we do need reminders of how essential and precious children are to us, and how much our future depends on them. And the pictures do answer the question of why school enrolments are declining, plus an indication of what we must do to secure a full and rewarding future. At the end, too, I have added what may be for our race, and our planet, the final question of all.

APPENDIX A
Technical Appendix

An
Interim
Interim Report
From

OPERATION CODE

Presented to

The Honourable Thomas L. Wells
(Mr. Minister, I Presume?)

Season's Greetings and All That!
(From Your Atlantic Region)

December 25, 1977

Robert W.B. Jackson
Commissioner

* * * * *

TOM! TOM!

LOOK! SEE!

HEAR! HEAR!

SEE BOB RUN!

HEAR BOB SAY!

(from the Davis Day)

*

| |
|-------------------------------|
| ! The Answer Has Been Found ! |
|-------------------------------|

At OISE - of course!

In Educational Planning - Naturally!

(What Else Is New?)

THIS IS...



...A CHILD



LUANA

A Mother (to be) in the Labour Force

A VISIT TO ONE OF THE FEW GUARDED ISOLATED COLONIES OF THOSE PRECIOUS
VANISHING CANADIANS (CIRCA AD 1977)



A JUNIOR KINDERGARTEN CLASS LOCATED NEAR THE EDGE OF SCARBORO BLUFFS, UPPER CANADA

THE PRESENT AND THE FUTURE

OF DECLINING ENROLMENT

A DISASTER ?

OR

AN OPPORTUNITY ?

IT ALL DEPENDS

- ON YOU
- AND ON YOUR BOARD
- AND ON YOUR COMMUNITY

WHAT ARE YOUR OWN PRIORITIES?

CHEER UP!

IT MAY GET WORSE !

?

THE FINAL

QUESTION

?

WILL IT BE AND OR OR?

THIS?



AND/OR

THAT?

Berry's World



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"What's all the big fuss about genetic research?"

APPENDIX B

THE UNCERTAIN FUTURE--HOW MUCH FAITH SHOULD
ONE PUT IN A PROJECTION?

Cicely Watson

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APPENDIX B CODE REPORT

THE UNCERTAIN FUTURE—HOW MUCH FAITH SHOULD ONE PUT IN A PROJECTION?

by Cicely Watson

The Commission on Declining School Enrolments in Ontario (CODE) must describe the expected magnitude and duration of the reduction of enrolment in the elementary and secondary schools of this province. Since the Commissioner, Dr. Jackson, has asked OISE personnel to prepare the Commission projections – ten and twenty year forecasts in considerable detail – we felt it necessary to assess our past success. The OISE team has been preparing projections of Ontario's enrolment since 1965. There are published elementary school projections by grades dating from 1968, published secondary school ones from 1967 and published projections for every county board from 1971. Since 1973 there have been comparable projections by age. In addition to the published numbers, based on trend extrapolation and judgement, there have been since 1974, sets of numbers produced by computer calculation using 6 different mathematical techniques. In addition we have developed a computer validation technique involving backcasting. All this provided a considerable set of projections for analysis.

In addition we hereby also report our analysis of the Ministry's enrolment projections and the Ontario Government's official population projections which have been produced by the Department of Economics and Development.

This review has had two purposes: (1) To assure ourselves and the Commissioner that the OISE projection error has been reasonably low; sufficiently low, in fact, to place confidence in our statements of future conditions and to ensure that our projections of ten and twenty years hence be taken seriously; (2) To assure the Commissioner that the province and the authorities who operate school systems have year after year had access to a number of reasonably accurate predictions of the coming population and enrolment decline; that their problems arise not because these predictions have been greatly at fault, but because they have not been believed and acted upon.

*The author wishes to pay tribute to the work of Aribert Kleist, the OISE research assistant who, under the general direction of OISE project director, Saeed Quazi, prepared the tables for this analysis.

Elementary Enrolment – OISE Estimates

Table 1 shows the difference between the OISE projected and the actual compulsory elementary school enrolment by grade, starting with the projection of 1968 and ending with that of 1976. Before the table is discussed some details should be noted. The projection of September 1977 enrolment, calculated in spring and summer 1977, has not been included because its accuracy cannot be checked yet. The “actual” figures referred to are the Ontario Ministry of Education’s official audited September 30th enrolment, which we receive only in March of the following year. Some adjustment of the published figures has had to be made to ensure comparability. Kindergarten enrolment has been excluded because for some years it was calculated separately and for others not included at all.

The Ministry’s collection series of elementary statistics by grade, by counties and districts began in 1966 but our complete figures date only from 1967, hence that is the year our analysis begins. The source for the 1968 projection is The Ontario Institute for Studies in Education Enrollment Projection Series No. 3, *Ontario Pre-School and Elementary School Enrollment Projections to 1981-82, Part I*. In our review we discovered an error arising from the working sheets and undetected in the copysetting. The elementary public and separate figures should sum to the total elementary figures. The printed ones of certain grades do not. So we have corrected the row totals.

The source for the 1971 projection is Series No. 6, *Ontario Elementary School Enrollment Projections to 1981/82, Part 2*. The projections of 1973 through 1976 were prepared under contract for the Ministry. In estimate 1 the base, grade 1, is derived from an estimate of live births. In estimate 2 it is derived from an estimate of the population of 6 year olds. Estimate 1A is the sum of the county estimate 1’s, and estimate 2A is the sum of the county estimate 2’s.

In 1974 the Ministry did not report the category “Special Education”, so in the 1974 calculations it was not projected. Therefore, to assure comparability only the row totals have been analyzed. In that year, with the creation of the Regional Municipality of Durham, the time series was upset. So not all county projections by grade were calculated, and hence it was impossible to sum to a provincial total projection comparable to the usual “A” set.

The first year of the left hand column of the table represents the first projection year (e.g., 1968 based on a series of actual statistics up to 1967). Thus the 1967 projection of the province’s public school enrolment showed an overprojection of 0.29% the following year. The error grew, which was to be expected, but it peaked in 1974 and thereafter it reduced, so that the 1976 forecast (i.e., the 9th year forward) was actually the most accurate with a 0.05% error. The 1967 projection of separate school enrolment shows much the same pattern except that the error peaked much earlier, in 1971.

Appendix Table 1A

DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED COMPULSORY ELEMENTARY SCHOOL ENROLMENTS BY GRADE AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1968-76 (BASED ON ACTUAL UP TO 1967)

| Year of Projection | Sector | Grade 1 | | Grade 2 | | Grade 3 | | Grade 4 | | Grade 5 | | Grade 6 | | Grade 7 | | Grade 8 | | Grade 9 | | Grade 10 | | Auxiliary | | Total | |
|--------------------|----------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|----------|--------|-----------|--------|--------|--------|
| | | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 |
| 1968 | Public | - 0.68 | +0.19 | +0.19 | +0.82 | +0.73 | +0.89 | +0.55 | +0.62 | +0.62 | +0.68 | +0.62 | +0.68 | +0.62 | +0.68 | +0.62 | +0.68 | +0.62 | +0.68 | +0.62 | +0.68 | +0.62 | +0.68 | +0.62 | +0.68 |
| 1969 | " | - 1.40 | -0.76 | +0.32 | +1.32 | +0.39 | +0.91 | +0.06 | +0.56 | +0.11 | +0.61 | +0.06 | +0.56 | +0.11 | +0.61 | +0.06 | +0.56 | +0.11 | +0.61 | +0.06 | +0.56 | +0.11 | +0.61 | +0.06 | +0.56 |
| 1970 | " | - 2.63 | -1.44 | +0.02 | +0.97 | +0.97 | +2.40 | +1.52 | +1.52 | +2.40 | +1.52 | +1.52 | +1.52 | +2.40 | +1.52 | +1.52 | +1.52 | +2.40 | +1.52 | +1.52 | +1.52 | +2.40 | +1.52 | +1.52 | +1.52 |
| 1971 | " | - 3.12 | -2.91 | -0.20 | +0.04 | +0.04 | +4.15 | +5.14 | +5.14 | +4.15 | +5.14 | +5.14 | +5.14 | +4.15 | +5.14 | +5.14 | +5.14 | +4.15 | +5.14 | +5.14 | +5.14 | +4.15 | +5.14 | +5.14 | +5.14 |
| 1972 | " | - 1.46 | -3.45 | -1.83 | -0.87 | -0.87 | +4.06 | +5.14 | +5.14 | +4.06 | +5.14 | +5.14 | +5.14 | +4.06 | +5.14 | +5.14 | +5.14 | +4.06 | +5.14 | +5.14 | +5.14 | +4.06 | +5.14 | +5.14 | +5.14 |
| 1973 | " | - 0.99 | -1.71 | -2.17 | -0.76 | -0.76 | +3.68 | +5.03 | +5.03 | +3.68 | +5.03 | +5.03 | +5.03 | +3.68 | +5.03 | +5.03 | +5.03 | +3.68 | +5.03 | +5.03 | +5.03 | +3.68 | +5.03 | +5.03 | +5.03 |
| 1974 | " | - 2.85 | +0.39 | -4.05 | -4.50 | -4.50 | +0.81 | +4.33 | +4.33 | +0.81 | +4.33 | +4.33 | +4.33 | +0.81 | +4.33 | +4.33 | +4.33 | +0.81 | +4.33 | +4.33 | +4.33 | +0.81 | +4.33 | +4.33 | +4.33 |
| 1975 | " | - 1.66 | +1.02 | +1.15 | -3.73 | -3.73 | +5.01 | +6.29 | +6.29 | +5.01 | +6.29 | +6.29 | +6.29 | +5.01 | +6.29 | +6.29 | +6.29 | +5.01 | +6.29 | +6.29 | +6.29 | +5.01 | +6.29 | +6.29 | +6.29 |
| 1976 | " | - 4.91 | -1.86 | +1.96 | +0.62 | +0.62 | +0.53 | +1.19 | +1.19 | +0.53 | +1.19 | +1.19 | +1.19 | +0.53 | +1.19 | +1.19 | +1.19 | +0.53 | +1.19 | +1.19 | +1.19 | +0.53 | +1.19 | +1.19 | +1.19 |
| 1968 | Separate | + 2.00 | -1.01 | -0.78 | +0.55 | +0.58 | +0.78 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 |
| 1969 | " | + 5.46 | +1.35 | -1.34 | +0.35 | +0.38 | +1.09 | -0.88 | -0.88 | +1.09 | -0.88 | -0.88 | -0.88 | +1.09 | -0.88 | -0.88 | -0.88 | +1.09 | -0.88 | -0.88 | -0.88 | +1.09 | -0.88 | -0.88 | -0.88 |
| 1970 | " | + 5.98 | +3.15 | -1.34 | +0.35 | +0.38 | +1.09 | -0.88 | -0.88 | +1.09 | -0.88 | -0.88 | -0.88 | +1.09 | -0.88 | -0.88 | -0.88 | +1.09 | -0.88 | -0.88 | -0.88 | +1.09 | -0.88 | -0.88 | -0.88 |
| 1971 | " | + 6.86 | +3.01 | +1.76 | +0.62 | +0.62 | +0.78 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 |
| 1972 | " | + 8.29 | +2.55 | +0.33 | +0.33 | +0.33 | +0.78 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 |
| 1973 | " | + 10.30 | +2.55 | +0.33 | +0.33 | +0.33 | +0.78 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 |
| 1974 | " | + 8.29 | +2.55 | +0.33 | +0.33 | +0.33 | +0.78 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 | +0.78 | -0.66 | -0.66 | -0.66 |
| 1975 | " | + 6.29 | +5.98 | +1.93 | +2.39 | +2.39 | +0.52 | -5.13 | -5.13 | +0.52 | -5.13 | -5.13 | -5.13 | +0.52 | -5.13 | -5.13 | -5.13 | +0.52 | -5.13 | -5.13 | -5.13 | +0.52 | -5.13 | -5.13 | -5.13 |
| 1976 | " | + 3.13 | +3.17 | +3.09 | +0.24 | +0.24 | -1.30 | -7.24 | -7.24 | -1.30 | -7.24 | -7.24 | -7.24 | -1.30 | -7.24 | -7.24 | -7.24 | -1.30 | -7.24 | -7.24 | -7.24 | -1.30 | -7.24 | -7.24 | -7.24 |
| 1968 | Total | - 0.80 | -0.09 | +0.55 | +0.58 | +0.58 | +0.86 | +0.08 | +0.08 | +0.86 | +0.08 | +0.08 | +0.08 | +0.86 | +0.08 | +0.08 | +0.08 | +0.86 | +0.08 | +0.08 | +0.08 | +0.86 | +0.08 | +0.08 | +0.08 |
| 1969 | " | + 0.06 | -0.26 | +0.35 | +0.98 | +0.98 | +1.63 | +1.35 | +1.35 | +1.63 | +1.35 | +1.35 | +1.35 | +1.63 | +1.35 | +1.35 | +1.35 | +1.63 | +1.35 | +1.35 | +1.35 | +1.63 | +1.35 | +1.35 | +1.35 |
| 1970 | " | + 0.35 | -0.75 | +0.35 | +0.98 | +0.98 | +1.63 | +1.35 | +1.35 | +1.63 | +1.35 | +1.35 | +1.35 | +1.63 | +1.35 | +1.35 | +1.35 | +1.63 | +1.35 | +1.35 | +1.35 | +1.63 | +1.35 | +1.35 | +1.35 |
| 1971 | " | + 0.42 | -1.58 | -1.39 | +0.42 | +0.42 | +2.10 | +2.03 | +2.03 | +2.10 | +2.03 | +2.03 | +2.03 | +2.10 | +2.03 | +2.03 | +2.03 | +2.10 | +2.03 | +2.03 | +2.03 | +2.10 | +2.03 | +2.03 | +2.03 |
| 1972 | " | + 0.92 | -2.23 | -1.60 | +0.35 | +0.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 | +2.35 |
| 1973 | " | + 3.57 | -2.29 | -2.29 | -2.29 | -2.29 | -2.69 | -4.74 | -4.74 | -2.69 | -4.74 | -4.74 | -4.74 | -2.69 | -4.74 | -4.74 | -4.74 | -2.69 | -4.74 | -4.74 | -4.74 | -2.69 | -4.74 | -4.74 | -4.74 |
| 1974 | " | + 5.01 | +1.81 | -2.91 | -2.91 | -2.91 | -0.52 | -1.52 | -1.52 | -0.52 | -1.52 | -1.52 | -1.52 | -0.52 | -1.52 | -1.52 | -1.52 | -0.52 | -1.52 | -1.52 | -1.52 | -0.52 | -1.52 | -1.52 | -1.52 |
| 1975 | " | + 0.59 | +2.45 | +1.51 | +2.37 | +2.37 | -1.49 | -0.36 | -0.36 | -1.49 | -0.36 | -0.36 | -0.36 | -1.49 | -0.36 | -0.36 | -0.36 | -1.49 | -0.36 | -0.36 | -0.36 | -1.49 | -0.36 | -0.36 | -0.36 |
| 1976 | " | - 2.55 | -0.47 | +2.37 | +2.37 | +2.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 | -0.37 |

Appendix Table 1B

DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED COMPULSORY ELEMENTARY SCHOOL ENROLMENTS BY GRADE AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1971-76 (BASED ON ACTUAL UP TO 1970)

| Year of Projection | Sector | Grade 1 | | Grade 2 | | Grade 3 | | Grade 4 | | Grade 5 | | Grade 6 | | Grade 7 | | Grade 8 | | Grade 9 | | Grade 10 | | Auxiliary | | Total | |
|--------------------|----------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|----------|--------|-----------|--------|--------|--------|
| | | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 |
| 1971 | Public | +7.10 | +1.75 | -0.12 | +0.41 | +0.31 | +0.31 | +0.14 | +0.36 | +1.27 | +0.99 | +0.36 | +1.04 | -0.60 | +0.42 | -1.19 | -0.29 | +0.23 | +0.22 | +0.54 | +8.73 | +0.61 | -0.22 | +0.54 | +8.73 |
| 1972 | " | +8.72 | +8.46 | +6.34 | +1.97 | +0.02 | +0.66 | +0.11 | +0.36 | +2.03 | +1.98 | +1.54 | +1.83 | +0.46 | -0.42 | -0.08 | +0.18 | +0.22 | +0.22 | +10.54 | +8.73 | +0.61 | -0.22 | +10.54 | +8.73 |
| 1973 | " | +8.22 | +9.75 | +8.12 | +8.68 | +7.24 | +2.48 | -0.67 | +0.09 | +2.03 | +1.98 | +1.54 | +1.83 | +0.46 | -0.42 | -0.08 | +0.18 | +0.22 | +0.22 | +10.54 | +8.73 | +0.61 | -0.22 | +10.54 | +8.73 |
| 1974 | " | +9.30 | +11.19 | +7.29 | +9.57 | +5.95 | +6.30 | +4.84 | +0.28 | +0.44 | +1.03 | +2.77 | +2.33 | +1.90 | +2.05 | +1.42 | +1.83 | +0.85 | +0.77 | +11.67 | +12.25 | +3.19 | +3.00 | +11.67 | +12.25 |
| 1975 | " | +5.75 | +5.02 | +7.02 | +9.65 | +7.42 | +9.49 | +6.54 | +6.99 | +7.82 | +2.88 | +0.80 | +0.80 | +0.80 | +0.80 | +0.80 | +0.80 | +0.80 | +0.80 | +2.02 | -1.98 | +4.03 | +4.13 | +2.02 | -1.98 |
| 1976 | " | +5.44 | +0.31 | +5.25 | +5.34 | +7.36 | +9.76 | +5.83 | +7.83 | +8.58 | +8.78 | +7.81 | +3.01 | +0.49 | +1.58 | +3.46 | +3.95 | +2.45 | +2.45 | -17.69 | -17.37 | +4.12 | +4.22 | -17.69 | -17.37 |
| 1968 | Separate | +5.94 | +0.08 | -1.24 | -0.37 | -0.97 | -0.29 | -0.23 | -0.30 | -0.98 | -0.62 | +1.04 | -0.60 | +0.42 | -1.19 | -0.29 | +0.23 | +0.22 | +0.22 | +10.54 | +8.73 | +0.61 | -0.22 | +10.54 | +8.73 |
| 1969 | " | +7.68 | +5.38 | +3.17 | -1.54 | -3.64 | -2.04 | -1.68 | -1.04 | -1.62 | -1.26 | -1.45 | +1.74 | -1.50 | +0.45 | -0.61 | -0.61 | -0.61 | -0.61 | +14.89 | +3.15 | +0.69 | -0.53 | +14.89 | +3.15 |
| 1970 | " | +7.68 | +5.38 | +3.17 | -1.54 | -3.64 | -2.04 | -1.68 | -1.04 | -1.62 | -1.26 | -1.45 | +1.74 | -1.50 | +0.45 | -0.61 | -0.61 | -0.61 | -0.61 | +14.89 | +3.15 | +0.69 | -0.53 | +14.89 | +3.15 |
| 1971 | " | +1.93 | +2.55 | +3.17 | +2.22 | +2.10 | -0.27 | -3.83 | -5.09 | -3.52 | -4.11 | -3.00 | -1.32 | -2.56 | +0.22 | -2.64 | +1.28 | -1.37 | -1.37 | +6.83 | +7.88 | +0.08 | -1.38 | +6.83 | +7.88 |
| 1972 | " | +4.25 | +4.48 | -0.69 | -0.51 | -0.56 | -0.17 | -2.72 | -6.16 | -7.01 | -4.97 | -3.48 | -3.93 | -1.21 | -3.98 | -1.06 | -3.37 | -3.37 | -3.37 | +4.30 | +5.13 | +2.39 | -2.35 | +4.30 | +5.13 |
| 1973 | " | -7.31 | -9.02 | -5.78 | -5.10 | -3.38 | -1.92 | -2.15 | -3.29 | -3.42 | -3.04 | -4.73 | -9.06 | -6.03 | -6.99 | -3.60 | -4.93 | -4.93 | -4.93 | +11.62 | -10.26 | -4.73 | -5.63 | +11.62 | -10.26 |
| 1974 | " | +6.79 | +1.30 | -0.57 | +0.19 | -0.05 | +0.14 | +0.04 | +0.38 | +0.62 | +0.53 | +0.55 | +0.16 | -0.18 | -0.39 | +0.05 | +0.22 | +0.22 | +0.22 | +0.65 | -0.67 | +0.89 | +0.27 | +0.65 | -0.67 |
| 1975 | " | +7.63 | +7.83 | +6.72 | +6.80 | +5.07 | +0.66 | -1.94 | -0.95 | +0.22 | +0.48 | +1.24 | +0.94 | +1.43 | +0.83 | +0.18 | +0.44 | +0.38 | +0.38 | -5.92 | -7.05 | +1.67 | +0.10 | -5.92 | -7.05 |
| 1976 | " | +7.22 | +8.47 | +5.95 | +6.97 | +4.25 | +4.44 | +2.64 | -1.59 | -1.71 | -0.70 | +0.43 | +0.33 | +1.11 | +0.60 | +0.32 | +0.32 | +0.32 | +0.32 | +0.16 | +0.13 | +2.49 | +2.22 | +0.16 | +0.13 |
| 1968 | Total | +2.91 | +2.33 | +4.79 | +6.85 | +5.17 | +6.27 | +4.03 | +4.29 | +4.06 | -0.25 | -1.30 | -0.64 | +0.10 | -0.17 | +1.80 | +1.52 | +1.52 | +1.52 | -13.49 | -13.08 | +2.09 | +1.89 | -13.49 | -13.08 |
| 1969 | " | +1.81 | -2.35 | +2.04 | +2.29 | +4.19 | +6.31 | +3.47 | +4.54 | +5.02 | +5.27 | +4.08 | -0.59 | -1.40 | -0.36 | +1.42 | +1.38 | +1.38 | +1.38 | -18.39 | -17.99 | +1.85 | +1.24 | -18.39 | -17.99 |

Appendix Table 1C

DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED COMPULSORY ELEMENTARY SCHOOL ENROLMENTS BY
GRADE AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1973-76 (BASED ON ACTUAL UP TO 1972)

| Year of Projection | Sector | Grade 1 | | Grade 2 | | Grade 3 | | Grade 4 | | Grade 5 | | Grade 6 | | Grade 7 | | Grade 8 | | Grade 9 | | Grade 10 | | Auxiliary | | Total | |
|-----------------------|----------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|----------|--------|-----------|--------|--------|--------|
| | | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 |
| 1973 | Public | +2.23 | + 0.68 | -0.81 | -0.81 | -0.44 | -0.44 | -1.28 | -1.28 | -0.30 | -0.30 | -0.93 | -0.93 | -0.53 | -0.53 | -0.62 | -0.62 | -17.84 | -13.77 | -13.77 | -13.77 | 2.03 | -2.18 | -0.42 | -0.57 |
| 1974 | " | +4.07 | -2.37 | +1.94 | +0.59 | -3.12 | -3.12 | -2.41 | -2.41 | -1.05 | -1.05 | -0.51 | -0.51 | -1.15 | -1.15 | +0.06 | +0.06 | -21.11 | -21.11 | -22.24 | -22.24 | 8.03 | +7.07 | -0.20 | -1.08 |
| 1975 | " | +3.66 | -5.96 | +2.49 | -3.86 | +1.74 | +0.32 | -2.43 | -2.43 | -1.03 | -1.03 | -1.55 | -1.55 | -0.89 | -0.89 | -0.74 | -0.74 | -21.11 | -21.11 | -22.24 | -22.24 | 7.32 | -11.19 | -0.17 | -2.26 |
| 1976 | " | +4.45 | -4.62 | +3.77 | -5.86 | +2.46 | -3.07 | -0.84 | -0.84 | -1.93 | -1.93 | -1.38 | -1.38 | -1.85 | -1.85 | +0.20 | +0.20 | -21.27 | -21.27 | -15.02 | -15.02 | 10.43 | -14.77 | +0.33 | -2.87 |
| 1973 | Separate | +0.16 | + 1.16 | -2.54 | -2.54 | -2.35 | -2.35 | -0.91 | -0.91 | -1.30 | -1.30 | -0.59 | -0.59 | -0.64 | -0.64 | -0.46 | -0.46 | -9.56 | -9.56 | -6.91 | -6.91 | +9.04 | +2.17 | -1.38 | -1.62 |
| 1974 | " | -0.47 | - 6.64 | -1.47 | -2.78 | -4.57 | -4.57 | -4.18 | -4.18 | -1.74 | -1.74 | -1.55 | -1.55 | -1.50 | -1.50 | -1.91 | -1.91 | -17.84 | -17.84 | -13.77 | -13.77 | +3.87 | +3.70 | -3.09 | -3.97 |
| 1975 | " | -1.19 | -10.36 | -1.44 | -7.54 | -3.27 | -4.55 | -5.94 | -5.94 | -5.13 | -5.13 | -2.05 | -2.05 | -2.71 | -2.71 | -1.92 | -1.92 | -21.11 | -21.11 | -22.24 | -22.24 | +1.41 | +1.30 | -4.40 | -5.77 |
| 1976 | " | -0.74 | - 9.37 | -1.22 | -10.39 | -3.13 | -9.13 | -4.54 | -4.54 | -6.21 | -6.21 | -5.87 | -5.87 | -2.63 | -2.63 | -2.66 | -2.66 | -21.27 | -21.27 | -15.02 | -15.02 | -12.87 | -21.28 | -4.76 | -7.60 |
| 1973 | Total | +1.66 | +0.31 | -1.31 | -1.31 | -0.99 | -0.99 | -1.17 | -1.17 | -0.58 | -0.58 | -0.83 | -0.83 | -0.56 | -0.56 | -0.58 | -0.58 | -9.58 | -9.58 | -6.91 | -6.91 | +0.08 | -1.35 | -0.70 | -0.88 |
| 1974 | " | +1.74 | -1.54 | +0.96 | -0.38 | -1.54 | -1.54 | -2.93 | -2.93 | -1.68 | -1.68 | -0.81 | -0.81 | -1.23 | -1.23 | -1.53 | -1.53 | -17.86 | -17.86 | -13.77 | -13.77 | +7.13 | +4.76 | -1.07 | -1.96 |
| 1975 | " | +2.28 | -7.21 | +1.35 | -4.92 | +0.27 | -1.06 | -3.40 | -3.40 | -2.31 | -2.31 | -1.72 | -1.72 | -1.43 | -1.43 | -1.08 | -1.08 | -21.11 | -21.11 | -22.24 | -22.24 | -5.65 | -10.45 | -1.46 | -3.48 |
| 1976 | " | +2.97 | -5.97 | +2.31 | -7.18 | +0.82 | -5.42 | -1.00 | -2.31 | -3.20 | -3.20 | -2.72 | -2.72 | -2.08 | -2.08 | -0.63 | -0.63 | -21.31 | -21.31 | -15.06 | -15.06 | -10.94 | -16.14 | -1.23 | -4.24 |
| 1973 | Public | -0.91 | -0.69 | -0.91 | -0.89 | -0.41 | -0.63 | -1.21 | -1.47 | -0.51 | -0.33 | -0.83 | -0.82 | -0.71 | -0.71 | -0.50 | -0.35 | -15.19 | -15.19 | -15.80 | -6.91 | -7.80 | -6.28 | -0.96 | -0.82 |
| 1974 | " | +0.26 | -3.72 | -1.20 | -1.05 | -2.96 | -3.40 | -2.26 | -2.74 | -1.73 | -1.83 | -0.82 | -0.82 | -1.18 | -1.18 | +0.06 | +0.10 | -18.77 | -18.77 | -19.84 | -13.84 | +0.97 | +2.35 | -1.14 | -1.47 |
| 1975 | " | +0.37 | -7.36 | -1.19 | -5.24 | -1.07 | -1.47 | -2.03 | -2.75 | -1.10 | -1.22 | -1.53 | -1.53 | -1.05 | -1.05 | -0.57 | +0.15 | -18.77 | -18.77 | -19.84 | -13.84 | -15.76 | -15.31 | -1.48 | -2.82 |
| 1976 | " | +1.83 | -5.87 | +0.65 | -7.29 | -0.81 | -5.45 | -2.10 | -2.83 | -1.76 | -2.11 | -1.12 | -1.12 | -1.77 | -1.47 | +0.28 | +1.18 | -18.85 | -18.85 | -20.05 | -6.02 | -18.64 | -18.85 | -1.19 | -3.58 |
| 1973 | Separate | -1.34 | - 3.95 | -2.33 | -2.42 | -1.72 | -2.04 | -1.16 | -1.29 | -1.38 | -1.38 | -0.72 | -0.98 | -0.35 | -0.67 | -0.03 | -0.10 | -8.88 | -9.16 | -2.11 | -3.17 | +3.51 | +3.69 | -1.32 | -1.77 |
| 1974 | " | -2.82 | -9.42 | -2.66 | -5.36 | -3.60 | -4.04 | -3.75 | -4.23 | -1.91 | -2.17 | -1.63 | -1.99 | -1.27 | -1.88 | -1.17 | -1.58 | -15.19 | -15.19 | -15.80 | -6.91 | -8.34 | -1.81 | -2.38 | -2.97 |
| 1975 | " | -1.64 | -13.33 | -3.46 | -10.15 | -3.59 | -6.65 | -5.01 | -5.65 | -4.59 | -5.21 | -2.23 | -2.79 | -2.38 | -3.13 | -1.19 | -1.53 | -18.77 | -18.77 | -19.84 | -13.84 | -4.63 | -6.24 | -4.31 | -6.85 |
| 1976 | " | -3.67 | -12.76 | -3.32 | -13.21 | -4.30 | -11.29 | -4.80 | -6.06 | -5.88 | -5.88 | -5.33 | -6.25 | -2.33 | -3.32 | -1.78 | -2.68 | -18.85 | -18.85 | -20.05 | -6.02 | -18.43 | -20.71 | -4.60 | -8.54 |
| 1973 | Total | -1.03 | -1.59 | -1.32 | -1.33 | -0.79 | -1.04 | -1.19 | -1.42 | -0.73 | -0.63 | -0.80 | -0.86 | -0.60 | -0.60 | -0.36 | -0.13 | -8.89 | -9.17 | -2.11 | -3.17 | -5.64 | -4.38 | -1.06 | -1.31 |
| 1974 | " | -0.61 | -5.33 | -1.62 | -2.29 | -1.14 | -1.58 | -2.69 | -3.16 | -1.79 | -1.83 | -0.82 | -0.82 | -1.40 | -1.40 | -0.70 | -0.88 | -15.82 | -15.82 | -16.91 | -10.91 | -8.34 | +1.36 | -1.69 | -2.31 |
| 1975 | " | -0.77 | -9.05 | -1.85 | -6.66 | -1.81 | -2.98 | -2.91 | -3.68 | -2.44 | -2.54 | -1.69 | -1.69 | -1.40 | -1.23 | -0.75 | -0.45 | -18.77 | -18.77 | -19.84 | -13.84 | -13.63 | -13.58 | -2.34 | -4.05 |
| 1976 | " | +0.27 | -7.83 | -0.50 | -5.02 | -1.64 | -7.18 | -2.90 | -4.38 | -2.75 | -3.37 | -2.38 | -2.87 | -1.93 | -2.00 | -0.12 | +0.06 | -18.89 | -20.09 | -6.06 | -8.66 | -18.59 | -19.24 | -2.30 | -5.10 |

DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED COMPULSORY ELEMENTARY SCHOOL ENROLMENTS BY GRADE AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1974-76 (BASED ON ACTUAL UP TO 1973)

Appendix Table 1D

| Year of Production | Sector | Grade 1 | | Grade 2 | | Grade 3 | | Grade 4 | | Grade 5 | | Grade 6 | | Grade 7 | | Grade 8 | | Grade 9 | | Grade 10 | | Auxiliary | | Total |
|-----------------------|----------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|----------|--------|-----------|--------|-------|
| | | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 1974 | Public | +0.33 | -3.05 | -0.28 | -0.23 | -2.61 | -1.74 | -1.74 | -1.07 | -1.07 | -0.21 | -0.21 | -0.72 | -0.72 | +0.29 | +0.29 | -0.72 | -0.72 | +7.68 | +7.68 | -0.52 | -0.52 | -0.91 | |
| 1975 | " | -2.50 | -6.69 | -1.20 | -4.52 | -0.77 | -1.57 | -1.57 | -1.14 | -1.14 | -0.97 | -0.97 | -1.09 | -1.09 | -0.62 | -0.62 | -10.52 | -10.52 | -11.31 | -11.31 | -1.52 | -1.52 | -2.40 | |
| 1976 | " | -1.21 | -5.28 | -2.40 | -6.59 | -1.49 | -4.81 | -1.74 | -1.85 | -1.85 | -1.39 | -1.39 | -1.77 | -1.77 | -0.32 | -0.32 | -13.94 | -13.94 | -15.15 | -15.15 | -1.91 | -1.91 | -3.29 | |
| 1974 | Separate | -0.89 | -4.22 | +1.05 | +1.05 | +0.10 | -0.89 | -0.89 | +0.65 | +0.65 | +0.35 | +0.35 | -0.42 | -0.42 | -1.03 | -1.03 | -12.20 | -12.20 | +0.39 | +0.39 | -5.39 | -5.39 | -1.08 | |
| 1975 | " | -4.23 | -8.35 | +0.83 | -2.57 | +1.30 | -1.42 | -1.42 | -0.40 | -0.40 | +0.93 | +0.93 | -0.34 | -0.34 | -0.59 | -0.59 | -13.31 | -13.31 | -12.49 | -12.49 | -7.17 | -7.17 | -1.93 | |
| 1976 | " | -3.51 | -7.49 | -1.65 | -5.88 | +1.42 | -2.11 | -2.11 | +1.09 | +1.09 | -0.85 | -0.85 | +0.84 | +0.84 | -0.04 | -0.04 | -15.11 | -15.11 | -13.97 | -13.97 | -19.74 | -19.74 | -2.63 | |
| 1974 | Total | -0.02 | -3.30 | +0.10 | +0.10 | -1.83 | -1.03 | -1.49 | -0.58 | -0.58 | -0.05 | -0.05 | -0.64 | -0.64 | -0.10 | -0.09 | -12.20 | -12.20 | +0.39 | +0.39 | +4.03 | +4.03 | -0.96 | |
| 1975 | " | -2.89 | -7.16 | -0.61 | -3.96 | -0.13 | -0.20 | -1.21 | -1.21 | -0.92 | -0.92 | -0.43 | -0.43 | -0.88 | -0.88 | -0.61 | -0.61 | -15.31 | -15.31 | -12.49 | -12.51 | -9.88 | -10.66 | -1.53 |
| 1976 | " | -1.87 | -5.91 | -2.18 | -6.38 | -0.67 | -4.01 | -0.90 | -1.05 | -1.05 | -1.15 | -1.15 | -1.01 | -1.01 | -0.24 | -0.24 | -15.10 | -15.10 | -4.02 | -4.02 | -15.16 | -16.33 | -1.75 | |
| 1974 | Public | +0.04 | -1.42 | -0.57 | -0.61 | -3.52 | -2.75 | -2.23 | -1.06 | -2.08 | -1.49 | -1.18 | -1.40 | -1.69 | -2.00 | -0.67 | -0.93 | -4.55 | -4.55 | +5.51 | +5.51 | -1.35 | | |
| 1975 | " | +0.27 | -5.21 | -1.06 | -2.56 | -1.17 | -1.29 | -2.21 | -1.81 | -1.82 | -0.53 | -2.04 | -1.45 | -2.13 | -2.38 | -1.43 | -1.67 | -13.13 | -13.13 | -12.28 | -12.28 | -1.83 | | |
| 1976 | " | +1.86 | -3.76 | +0.37 | -4.77 | -1.37 | -2.99 | -1.79 | -2.27 | -2.13 | -2.08 | -0.62 | -2.10 | -2.30 | -1.43 | -1.67 | -16.36 | -16.36 | -16.27 | -16.27 | -1.70 | -1.70 | -3.01 | |
| 1974 | Separate | +0.05 | -0.40 | -0.08 | +0.19 | -0.23 | -0.10 | -1.57 | -0.43 | -0.46 | -1.58 | -0.17 | +0.07 | -0.88 | -0.96 | -0.80 | -1.06 | -8.59 | -10.90 | -3.88 | -1.86 | -8.52 | -8.03 | -1.12 |
| 1975 | " | -1.18 | -8.91 | +0.81 | -3.55 | +0.08 | -0.49 | -1.20 | -2.12 | -1.77 | -0.62 | -1.48 | -1.31 | -1.15 | -0.87 | -1.13 | -12.43 | -14.70 | -12.59 | -13.16 | -10.24 | -10.67 | -1.96 | |
| 1976 | " | -1.09 | -6.33 | +0.56 | -7.20 | -1.22 | -3.11 | -0.65 | -0.07 | -0.93 | -0.42 | -2.68 | -2.09 | -1.23 | -2.10 | -0.81 | -0.86 | -12.43 | -14.64 | -4.71 | -5.43 | -22.43 | -23.49 | -1.85 |
| 1974 | Total | -0.02 | -2.36 | +0.43 | +0.38 | -2.57 | -1.99 | -2.04 | -1.17 | -1.61 | -1.52 | -0.89 | -0.98 | -1.48 | -1.70 | -0.71 | -0.97 | -8.61 | -10.92 | -3.88 | -1.86 | +1.74 | +2.60 | -1.39 |
| 1975 | " | -0.14 | -6.30 | -0.52 | -2.83 | -0.81 | -1.77 | -1.45 | -1.55 | -1.91 | -0.89 | -1.63 | -1.46 | -1.92 | -2.03 | -1.47 | -1.74 | -12.47 | -14.70 | -12.59 | -12.58 | -12.41 | -12.74 | -2.74 |
| 1976 | " | -0.73 | -4.91 | -1.32 | -4.80 | -1.77 | -3.45 | -1.32 | -1.93 | -2.16 | -1.63 | -2.26 | -2.12 | -2.35 | -2.24 | -1.25 | -1.43 | -12.96 | -14.69 | -4.76 | -5.47 | -17.94 | -17.94 | -3.31 |

DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED COMPULSORY ELEMENTARY SCHOOL ENROLMENTS BY GRADE AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1975-76 (BASED ON ACTUAL

Appendix Table 1E

| Year of Projection | Sector | Grade 1 | | Grade 2 | | Grade 3 | | Grade 4 | | Grade 5 | | Grade 6 | | Grade 7 | | Grade 8 | | Grade 9 | | Grade 10 | | Auxiliary | | Total | | | |
|-----------------------|----------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|----------|--------|-----------|--------|-------|-------|-------|-------|
| | | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | | | | |
| 1975 | Public | | | | | | | | | | | | | | | | | | | | | | | -0.86 | -1.02 | | |
| 1976 | " | | | | | | | | | | | | | | | | | | | | | | | -1.29 | -1.61 | | |
| 1975 | Public | | | | | | | | | | | | | | | | | | | | | | | -0.53 | -0.67 | | |
| 1976 | " | | | | | | | | | | | | | | | | | | | | | | | -0.57 | -0.85 | | |
| 1975 | Total | | | | | | | | | | | | | | | | | | | | | | | -0.76 | -0.91 | | |
| 1976 | " | | | | | | | | | | | | | | | | | | | | | | | -1.07 | -1.38 | | |
| 1976 | Public | -1.71 | +1.33 | -0.26 | -0.26 | +0.22 | +0.22 | +0.03 | +0.03 | -1.00 | -1.00 | -0.50 | -0.50 | +0.19 | +0.19 | +0.78 | +0.78 | | | | | | | -1.12 | -0.86 | -0.18 | +0.08 |
| 1976 | Separate | +0.36 | +2.44 | +0.97 | +0.97 | -0.23 | -0.23 | -0.08 | -0.08 | +0.71 | +0.71 | -0.39 | -0.39 | +0.70 | +0.70 | +0.44 | +0.44 | +0.73 | +0.73 | +14.48 | +14.48 | -10.81 | -10.61 | -0.62 | +0.85 | +0.95 | |
| 1976 | Total | -0.41 | +1.64 | +0.10 | +0.10 | +0.09 | +0.09 | 0.0 | 0.0 | -0.49 | -0.49 | -0.47 | -0.47 | +0.34 | +0.34 | +0.69 | +0.69 | +0.73 | +0.67 | +14.47 | +14.43 | -3.16 | -2.91 | -0.07 | +0.32 | +0.32 | |

The 1 year forward, 1968, error was an underprediction of 0.10%, the 9 year forward was an overprediction of 0.13%.

For both the public and separate systems, the elementary school projection error was generally one of overprediction. This is because the population projection we were using had a consistent overprediction error in the 6-year age cohort. This arose from consistent over prediction of the level of live births year after year, and the projection based on our estimate of live births suffered from the same defect.

Taken overall as a total projection for purposes of budgeting, space planning or even personnel planning, these 1967 projections would have been acceptable. They were actually more accurate on the long range than the short range. The 9 year forward prediction was an underenumeration of 0.05% (public) or 0.26% (total), an overenumeration of 0.13% (separate). The error in the total elementary enrolment never reached 1% in any year. For three years the error in the two public and the separate elementary enrolments reached an unsatisfactory level (over 1%).

When we look at the individual grade errors, we note that accuracy is variable. This is because specific grade levels are sensitive to policy decisions in the operation of school systems, and these generally are a reaction to short-term trends and problems. If this were not so, the error in the grades would follow the general over/under prediction pattern of error in the total figures. "Auxiliary" is the best example — its error is excessively high in most intervening years between 1968 and 1976, particularly in the separate system. "Auxiliary" is made up of the enrolment of special education classes. Obviously we predicted a development of these services by separate schools more rapidly than they were able to achieve. The explanation may be seen in the consistent underprediction of numbers in grades 5-8. Since the separate school systems expanded their general school services well beyond what had been anticipated, they could not concurrently also expand their special educational service.

By 1971, our 1967 elementary enrolment projection was showing an overprediction error (total) of 0.72%, but the new (1970) estimate 1 projection had an even higher error 0.89%. However that year's estimate 2 was satisfactory (+0.27% error). The error for public elementary enrolment was the same (+1%) and estimate 2 was much better (+0.46%). But for the separate school sector the revision (on the short term) was a decided improvement — (+0.61% vs. +1.42% estimate 1 and -0.22% estimate 2).

As a medium range projection, however, the 1970 calculation does not stand up as well. Whether the error levels by years 9 and 10 will drop again to the initial 1971 levels we shall not know until 1979 and 1980. In the intervening years they quite rapidly became unsatisfactorily high. In all years, in both estimates of total enrolment, the errors were overestimates, but the

separate school enrolment was generally underestimated and the public overestimated. The error in 1973 total elementary enrolment was as follows:

- 0.70% and -0.88% (1972 calculation)
- +2.31% and +1.76% (1970 calculation)
- +0.95% (1967 calculation)

The projections calculated in the next two years show four sets of provincial figures, two derived from the sum of the individual county, district and city projections (53 and 48 respectively). We shall discuss the all-province calculations. By 1973 the old 1967 projection was showing only an overestimation of 0.95%. However, the error of the old 1970 ones had surpassed a useful level (+2.31% and +1.76%), so the 1972 projection undoubtedly was a preferable substitute. Its 1973 one year forward errors were underestimates of 0.70% and 0.88%. But they accumulated over the next years — all underestimates. The error of estimate 1 was -1.07%, -1.46%, -1.23%; the error of estimate 2 mounted more rapidly, also all underestimates, being -1.96%, -3.48%, -4.24%. The large errors arose from the underprojections in the separate school systems, which grew each year from 1974 to 1976.

The error in 1971 total elementary enrolment was as follows:

- +1.00% and +0.46% (1970 calculation)
- +0.72% (1967 calculation)

The error in 1972 total elementary enrolment was as follows:

- +2.05% and +1.60% (1970 calculation)
- +0.71% (1967 calculation)

The projection calculated in 1973 was undoubtedly an improvement on that of the year before, but even initially it was not that much better than the old projection of 1967 and by 1975 and 1976 it was showing a higher error (but an underprojection rather than an overprojection). The error in the 1974 total elementary enrolment was as follows.

- 0.58% and -0.96% (1973 calculation)
- 1.07% and -1.96% (1972 calculation)
- +2.49% and +2.22% (1970 calculation)
- +0.96% (1967 calculation)

The direction of error in the public and total elementary figures is the same. Since 1970 the separate school enrolment had been consistently underestimated, until 1976 when all figures were overestimated once more.

The error in the 1975 total elementary enrolment was as follows:

- 0.76% and -0.91% (1974 calculation)
- 1.53% and -2.39% (1973 calculation)
- 1.46% and -3.48% (1972 calculation)
- +2.09% and +1.89% (1970 calculation)

+0.31% (1967 calculation)

The error in the 1976 projected total elementary enrolment was:

-0.07% and +0.32% (1975 calculation)
-1.07% and -1.38% (1974 calculation)
-1.75% and -3.09% (1973 calculation)
-1.23% and -4.24% (1972 calculation)
+1.85% and +1.24% (1970 calculation)
-0.26% (1967 calculation)

In summary: over the period reviewed all the projections were reasonably satisfactory as short term estimates (one or two years forward). The long term estimate of 1967 was very good and that of 1970 fairly good. Estimate 1 of the calculations of 1972 and 1973 are fairly good but to judge them as long term estimates we shall have to wait until 1980. If they follow the pattern of accumulating to a peak in the middle years and then improving once more their accuracy should become evident in 1980, 1981 and 1982. Contrary to our expectation, the prediction error does not accumulate evenly and we frequently were more accurate in the long than the medium range. In some years the calculations were particularly accurate; there seems to be some resemblance between enrolment projections and wine — they improve with keeping, and there are good vintage years and poor vintage years. At no time was our error in the prediction of total elementary enrolment as high as 5% (the greatest error was -4.24% in estimate 2 for 1976, as calculated in 1972). Our highest error for the public system was +4.55% in estimate 1 for 1976, calculated in 1970, but for the separate system it was much higher, -7.60% for 1976 as calculated in 1972. However the projections prepared for that system since 1973 are proving to be more satisfactory.

Elementary Enrolment — Ministry Estimates

We have a file of Ministry projections dating from July 7, 1971 (projecting 1971). That year's estimate was by grade for the total enrolment, public and separate combined. They included kindergarten figures but these have been omitted to make them comparable to the published OISE figures (which generally treat kindergarten separately). Starting in 1971 the Ministry projection provided estimates for the public, separate and total elementary enrolment. The Ministry does not calculate projections by age, so we have not discussed the OISE age estimates, although their error analysis is shown in Table 2.

Table 3 shows the difference between the Ministry's estimated and actual enrolment for the compulsory elementary enrolment. It shows an excellent error record, lower than that of the OISE team in their 1970 and 1971 projections, and in most respects in the calculations of more recent years. The projection

Appendix Table 2A

DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED ELEMENTARY SCHOOL ENROLMENTS BY AGE
AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1973-76

| Year of Projection | Age Sector | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | Total | |
|-----------------------|---------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|
| | | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A | Est. 3 | Est. 3A |
| 1973 | Public | +10.66 | -2.10 | -4.26 | -2.66 | -1.87 | +0.62 | +0.70 | +0.36 | -0.05 | -0.33 | +0.02 | -0.33 | +0.35 | +0.07 | -0.05 | -0.24 | 0.0 | +0.60 | +0.92 | +1.03 | -1.49 | -1.01 | +0.08 | -0.21 |
| 1974 | " | +23.80 | -1.91 | -5.26 | -4.00 | -4.99 | -2.42 | -1.82 | +0.35 | -0.18 | -0.79 | -0.31 | -0.79 | -0.90 | -0.26 | -0.17 | -0.61 | -0.78 | -0.36 | +0.45 | +1.17 | -0.65 | -0.23 | -0.06 | -0.86 |
| 1975 | " | +29.21 | -3.50 | -4.49 | -3.16 | -7.16 | -4.79 | -6.10 | -1.85 | -2.64 | -0.73 | -0.43 | -1.33 | -0.55 | -1.32 | -0.35 | -1.09 | -0.91 | -0.73 | -1.23 | -0.66 | -4.42 | -4.10 | -0.95 | -2.02 |
| 1976 | " | +42.05 | +11.05 | -3.26 | -1.08 | -5.96 | -3.46 | -7.28 | -5.19 | -6.37 | -4.34 | -2.48 | -0.82 | -0.53 | -1.61 | -0.43 | -1.32 | -0.91 | -0.59 | -1.98 | -1.66 | -10.80 | -10.51 | -1.15 | -2.00 |
| 1973 | Separate | -6.81 | -20.74 | -5.64 | -3.61 | -11.60 | -2.39 | -1.40 | -2.00 | -0.74 | -1.02 | -0.38 | -0.95 | +0.32 | -0.39 | +0.87 | +0.24 | +0.28 | +0.09 | +0.28 | +1.17 | -6.96 | -7.02 | -2.37 | -2.45 |
| 1974 | " | -11.01 | -28.41 | -9.74 | -8.11 | -9.98 | -6.93 | -11.65 | -3.22 | -2.52 | -3.27 | -1.44 | -2.21 | -0.01 | -1.25 | +0.74 | -0.59 | +1.01 | +0.23 | -0.42 | +0.36 | -16.85 | -16.47 | -4.90 | -5.27 |
| 1975 | " | -15.27 | -33.70 | -9.52 | -8.14 | -13.24 | -10.41 | -9.63 | -7.27 | -13.52 | -5.17 | -2.52 | -3.67 | -1.37 | -2.75 | +0.86 | -0.97 | +0.36 | +1.08 | +0.46 | +0.67 | -23.09 | -22.31 | -7.12 | -7.58 |
| 1976 | " | -16.12 | -30.07 | -10.04 | -9.23 | -12.78 | -10.17 | -12.49 | -10.11 | -11.24 | -8.82 | -13.49 | -5.47 | -2.45 | -4.14 | +0.11 | -1.78 | -0.14 | -2.03 | -0.76 | -1.18 | -21.43 | -20.02 | -8.47 | -8.47 |
| 1973 | Total | +4.64 | -8.53 | -4.64 | -3.12 | -4.61 | -0.23 | +0.10 | -0.32 | -0.24 | -0.53 | -0.09 | -0.51 | +0.34 | -0.60 | +0.21 | -0.11 | +0.08 | +0.46 | +0.73 | +1.07 | -4.57 | -4.40 | -0.65 | -0.88 |
| 1974 | " | +11.05 | -11.62 | -6.52 | -5.16 | -6.42 | -3.71 | -4.72 | -0.68 | -0.68 | -1.51 | -0.64 | -1.28 | -0.24 | -0.54 | +0.09 | -0.61 | -0.28 | -0.19 | -0.18 | +0.93 | -10.29 | -9.90 | -1.53 | -2.20 |
| 1975 | " | +12.30 | -15.02 | -5.91 | -4.56 | -8.92 | -6.41 | -7.17 | -4.84 | -5.83 | -2.03 | -1.04 | -2.01 | -0.79 | -1.74 | -0.01 | -1.06 | -0.55 | -0.83 | -0.72 | -0.27 | -15.73 | -15.14 | -2.85 | -3.73 |
| 1976 | " | +19.15 | -5.39 | -5.20 | -4.84 | -7.93 | -12.78 | -6.80 | -6.63 | -7.80 | -5.65 | -5.74 | -2.20 | -1.09 | -2.36 | -0.27 | -1.46 | -0.69 | -1.29 | -1.61 | -1.52 | -17.02 | -16.08 | -3.43 | -4.01 |
| 1973 | Public | +0.26 | -0.91 | -1.07 | -1.38 | -3.03 | -3.46 | -0.45 | -0.52 | -0.63 | -1.13 | -0.27 | -0.46 | +0.07 | -0.20 | -0.47 | -0.56 | -0.73 | -0.82 | -0.36 | -0.52 | -10.05 | -9.67 | -0.03 | -0.84 |
| 1974 | " | -0.52 | -0.82 | -0.26 | -0.49 | -5.39 | -5.79 | -4.63 | -5.09 | -1.23 | -1.15 | -1.03 | -0.75 | -0.45 | -0.75 | -0.57 | -0.90 | -1.21 | -1.36 | -1.79 | -1.98 | -13.68 | -13.55 | -2.01 | -2.11 |
| 1975 | " | +12.78 | +14.11 | -0.01 | -0.42 | -4.14 | -4.50 | -5.98 | -6.40 | -4.86 | -5.53 | -1.07 | -1.53 | -1.42 | -2.09 | -0.58 | -1.00 | -1.13 | -1.47 | -2.88 | -3.12 | -19.65 | -19.58 | -2.09 | -2.22 |
| 1976 | " | -4.90 | -7.90 | -2.57 | -3.95 | -3.73 | -3.91 | +0.77 | +0.81 | -0.65 | -0.34 | -0.42 | -0.44 | +0.17 | -0.06 | -0.42 | -0.41 | -0.07 | -0.08 | -0.69 | -0.61 | -10.04 | -9.48 | -1.74 | -2.01 |
| 1973 | Separate | -1.54 | -4.80 | -2.53 | -1.99 | -6.49 | -7.53 | -2.53 | -2.68 | -0.65 | -0.18 | -0.35 | -0.10 | -0.54 | -0.74 | +0.20 | +0.04 | -0.99 | -0.96 | -0.61 | -0.54 | -15.97 | -15.10 | -3.28 | -3.69 |
| 1974 | " | -5.07 | -11.63 | -3.69 | -3.17 | -5.97 | -7.23 | -4.67 | -5.68 | -3.59 | -3.33 | -0.32 | +0.45 | -0.49 | -0.09 | +0.11 | +0.07 | -0.89 | -1.08 | -2.10 | -1.93 | -13.13 | -11.80 | -3.35 | -3.89 |
| 1975 | Total | -1.63 | -2.31 | -1.49 | -2.10 | -3.22 | -3.59 | -0.10 | -0.13 | -0.78 | -0.90 | -0.31 | -0.46 | +0.10 | -0.16 | -0.45 | -0.52 | -0.84 | -0.61 | -0.34 | -0.41 | -10.04 | -9.91 | -1.15 | -1.19 |
| 1976 | " | -4.34 | -6.16 | -0.84 | -1.48 | -5.70 | -6.29 | -4.02 | -4.39 | -1.06 | -1.15 | -0.86 | -1.07 | -0.69 | -1.03 | -0.35 | -0.63 | -1.15 | -1.25 | -1.44 | -1.55 | -15.06 | -14.95 | -2.40 | -2.60 |
| 1973 | Public | +5.64 | +3.82 | -1.12 | -1.78 | -4.67 | -5.31 | -5.60 | -6.19 | -4.48 | -4.48 | -0.85 | -0.95 | -1.15 | -1.50 | -0.38 | -0.69 | -1.09 | -1.36 | -2.64 | -2.76 | -15.83 | -11.46 | -2.48 | -2.74 |
| 1974 | " | -4.90 | -7.90 | -2.57 | -3.95 | -3.73 | -3.91 | +0.77 | +0.81 | -0.65 | -0.34 | -0.42 | -0.44 | +0.17 | -0.06 | -0.42 | -0.41 | -0.07 | -0.08 | -0.69 | -0.61 | -10.04 | -9.48 | -1.74 | -2.01 |
| 1975 | " | -1.54 | -4.80 | -2.53 | -1.99 | -6.49 | -7.53 | -2.53 | -2.68 | -0.65 | -0.18 | -0.35 | -0.10 | -0.54 | -0.74 | +0.20 | +0.04 | -0.99 | -0.96 | -0.61 | -0.54 | -15.97 | -15.10 | -3.28 | -3.69 |
| 1976 | " | -5.07 | -11.63 | -3.69 | -3.17 | -5.97 | -7.23 | -4.67 | -5.68 | -3.59 | -3.33 | -0.32 | +0.45 | -0.49 | -0.09 | +0.11 | +0.07 | -0.89 | -1.08 | -2.10 | -1.93 | -13.13 | -11.80 | -3.35 | -3.89 |
| 1973 | Separate | -1.54 | -4.80 | -2.53 | -1.99 | -6.49 | -7.53 | -2.53 | -2.68 | -0.65 | -0.18 | -0.35 | -0.10 | -0.54 | -0.74 | +0.20 | +0.04 | -0.99 | -0.96 | -0.61 | -0.54 | -15.97 | -15.10 | -3.28 | -3.69 |
| 1974 | " | -5.07 | -11.63 | -3.69 | -3.17 | -5.97 | -7.23 | -4.67 | -5.68 | -3.59 | -3.33 | -0.32 | +0.45 | -0.49 | -0.09 | +0.11 | +0.07 | -0.89 | -1.08 | -2.10 | -1.93 | -13.13 | -11.80 | -3.35 | -3.89 |
| 1975 | Total | -1.63 | -2.31 | -1.49 | -2.10 | -3.22 | -3.59 | -0.10 | -0.13 | -0.78 | -0.90 | -0.31 | -0.46 | +0.10 | -0.16 | -0.45 | -0.52 | -0.84 | -0.61 | -0.34 | -0.41 | -10.04 | -9.91 | -1.15 | -1.19 |
| 1976 | " | -4.34 | -6.16 | -0.84 | -1.48 | -5.70 | -6.29 | -4.02 | -4.39 | -1.06 | -1.15 | -0.86 | -1.07 | -0.69 | -1.03 | -0.35 | -0.63 | -1.15 | -1.25 | -1.44 | -1.55 | -15.06 | -14.95 | -2.40 | -2.60 |
| 1973 | Public | +11.86 | +1.86 | -0.39 | -1.38 | +1.26 | +0.37 | +0.37 | +0.51 | +0.37 | +0.37 | -0.30 | -0.30 | +0.72 | +0.72 | +0.19 | +0.19 | -1.38 | -1.38 | -6.07 | -6.07 | +0.55 | +0.55 | +0.55 | +0.55 |
| 1974 | Separate | +10.46 | +1.95 | -0.39 | -1.38 | +1.26 | +0.37 | +0.37 | +0.51 | +0.37 | +0.37 | -0.30 | -0.30 | +0.72 | +0.72 | +0.19 | +0.19 | -1.38 | -1.38 | -6.07 | -6.07 | +0.55 | +0.55 | +0.55 | +0.55 |
| 1975 | Total | +10.46 | +1.95 | -0.39 | -1.38 | +1.26 | +0.37 | +0.37 | +0.51 | +0.37 | +0.37 | -0.30 | -0.30 | +0.72 | +0.72 | +0.19 | +0.19 | -1.38 | -1.38 | -6.07 | -6.07 | +0.55 | +0.55 | +0.55 | +0.55 |
| 1976 | " | +10.46 | +1.95 | -0.39 | -1.38 | +1.26 | +0.37 | +0.37 | +0.51 | +0.37 | +0.37 | -0.30 | -0.30 | +0.72 | +0.72 | +0.19 | +0.19 | -1.38 | -1.38 | -6.07 | -6.07 | +0.55 | +0.55 | +0.55 | +0.55 |
| 1973 | Public | +11.86 | +1.86 | -0.39 | -1.38 | +1.26 | +0.37 | +0.37 | +0.51 | +0.37 | +0.37 | -0.30 | -0.30 | +0.72 | +0.72 | +0.19 | +0.19 | -1.38 | -1.38 | -6.07 | -6.07 | +0.55 | +0.55 | +0.55 | +0.55 |
| 1974 | Separate | +10.46 | +1.95 | -0.39 | -1.38 | +1.26 | +0.37 | +0.37 | +0.51 | +0.37 | +0.37 | -0.30 | -0.30 | +0.72 | +0.72 | +0.19 | +0.19 | -1.38 | -1.38 | -6.07 | -6.07 | +0.55 | +0.55 | +0.55 | +0.55 |
| 1975 | Total | +10.46 | +1.95 | -0.39 | -1.38 | +1.26 | +0.37 | +0.37 | +0.51 | +0.37 | +0.37 | -0.30 | -0.30 | +0.72 | +0.72 | +0.19 | +0.19 | -1.38 | -1.38 | -6.07 | -6.07 | +0.55 | +0.55 | +0.55 | +0.55 |
| 1976 | " | +10.46 | +1.95 | -0.39 | -1.38 | +1.26 | +0.37 | +0.37 | +0.51 | +0.37 | +0.37 | -0.30 | -0.30 | +0.72 | +0.72 | +0.19 | +0.19 | -1.38 | -1.38 | -6.07 | -6.07 | +0.55 | +0.55 | +0.55 | +0.55 |

Est. 3A is the sum of all counties and districts

Appendix Table 2B

DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED ELEMENTARY SCHOOL ENROLMENTS BY AGE
AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1975-76

| Year of Projection | Age Sector | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | Total | |
|-----------------------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 | Est. 3 |
| 1975 | Public | -1.61 | +1.52 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 | -1.03 |
| 1976 | " | +10.04 | +1.77 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 | -0.27 |
| 1975 | Separate | -7.23 | +1.29 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 | -3.03 |
| 1976 | " | -3.92 | -0.13 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 | -2.49 |
| 1975 | Total | -3.75 | +1.46 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 | -1.61 |
| 1976 | " | +4.45 | +1.17 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 | -0.53 |
| 1975 | Public | +11.86 | -0.39 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 | +1.26 |
| 1976 | Separate | +10.46 | +1.95 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 |
| 1975 | Total | -11.30 | +0.28 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 | +1.27 |

calculated in 1971 began with a very low one year forward error, an underestimate of 0.15% and initially the error actually decreased. Its error (thus far) peaked in year 5, 1975, but was still only -1.36%. Their highest error was also in estimates for the separate system, an underprojection of 4.85% for 1976 in the 1973 projection (based on 1972 actual figures). As did the OISE group, the Ministry generally underestimated the separate school share of the enrolment and overestimated that of the public school.

The error in the 1972 total elementary enrolment projections was as follows:

- 0.01% (1971 calculation)
- 0.08% (1970 calculation)

In the 1973 projection:

- 0.14% (1972 calculation)
- +0.02% (1971 calculation)
- 0.19% (1970 calculation)

In the 1974 projection:

- +0.16% (1973 calculation)
- 0.51% (1972 calculation)
- 0.23% (1971 calculation)
- 0.72% (1970 calculation)

In the 1975 projection:

- +0.36% (1974 calculation)
- 0.17% (1973 calculation)
- 0.97% (1972 calculation)
- 0.59% (1972 calculation)
- 1.36% (1970 calculation)

The error in the 1976 projection (the comparable estimate 1 figures of the OISE group are given on the right) was as follows:

| | |
|-----------------------------|--------|
| -0.06% (calculated in 1975) | +0.07% |
| +1.13% (calculated in 1974) | -1.07% |
| +3.35% (calculated in 1973) | -1.75% |
| -0.67% (calculated in 1972) | -1.23% |
| -0.32% (calculated in 1971) | - |
| -1.25% (calculated in 1970) | +1.24% |
| | -0.26% |

Therefore, it should be conceded that this province has had available at least two sets of all-provincial benchmark figures estimating the medium range future and one estimating conditions 9-10 years forward, and that long range estimates of both the OISE group and the Ministry officials have been fairly accurate and should be taken seriously.

Population Projections

To a very large extent the accuracy of an elementary enrolment projection is dependent upon the accuracy of a population projection by age groups or by single years of age, or upon a projection of live births. On these it usually rests. Over the years the OISE team and the Ministry have been provided with population forecasts produced by a number of groups but only the Central Statistical Services of TEIGA* have consistently produced detailed projections of high utility. Our chief criticism of them has been that they are a multipurpose product whose prime interest has been to achieve overall accuracy. For many policies certain specific age groups are the target – subsidized housing for the aged requires detailed estimates of the numbers aged 65 to over 80; labour force problems, questions of unemployment and transfers of skills require detailed statistics of those aged 15 to 65. The most common method of calculating enrolment projections is the so-called “grade transition” one. It is based on the assumption that changes occur slowly, and in a hierarchical system like a school they can be traced statistically. Therefore the most accurate picture of tomorrow is some modified image of today. In our system, the vast majority of the pupils in, say, Grade 4 this year were in Grade 3 last year. And the ratio for a specific grade of this year’s enrolment to the grade enrolment of the grade before in the year before, is a good base for setting the estimated figure for the next higher grade, one year hence. But such a forecasting system needs for each projection year a set of entering figures (Grade 1, kindergarten, senior kindergarten – wherever one decides to start. The OISE group generally starts with Grade 1 and then calculates the kindergartens separately). To derive these base figures population projections are needed. But if the base numbers are a ratio of the, say, Grade 1 enrolment to the 6 year olds, or the kindergarten and Grade 1 enrolment to the 4, 5, 6 year olds then the utility of the entire population projection (for this purpose) stands or falls on its performance in a very narrow range of ages. Errors at the beginning of a projection system such as this accumulate rapidly and compound year by year.

The population projections we have used are calculated by the so-called component method. The population a year hence will consist of the people in the area (in this case the province) in the current year modified by (1) gains and losses from migration (i.e., plus those entering minus those leaving = the effect of net migration, which generally in Ontario has been positive i.e., an annual gain), (2) gains from births and (3) losses from deaths. So the component method involves calculating the effects of migration, the effects of changes in fertility, and the effects of mortality – successively, independently one after the other. These are then used to “adjust” the current year’s

*Ontario Ministry of Treasury, Economics and Intergovernmental Affairs

population forward year by year. In the province's short term projections, these calculations are done, by 5 year age groups, for Ontario as a whole. In TEIGA's long term projections (revised less frequently since they are based on census data) the calculations are done by single years of age for Ontario as a whole and for each country, division, large city or urban region.

If the Commission is to address itself to school conditions of 2000+ we shall be crucially dependent upon the population projections being used.

Table 4 compares the projected and actual Ontario population of 1966, 1971 and 1976. The projected figures are the estimates calculated in 1964 based on the census data of 1961. Overall the error is quite reasonable. By 1966 the projection was underestimating the total population (by 1.54%), five years later it was still underestimating and the error had reached 2.28% (the product primarily of underestimating the hordes of immigrants the province was receiving each year in the 1960s – this may be seen by looking at the signs before the figures in all age groups between 5 and 39; these are young adults and their families migrating to Ontario primarily because of job opportunities). But five years later the error had dropped and changed its direction. We cannot tell how much this was due to decreased immigration (well below the net migration of +12,000 per year from all sources, external and within Canada) and how much to drastically reduced numbers of births, which led to an even greater overprediction of the 0-4 age group than had been the case earlier. In any case an error 15 years forward of only +0.85% is an extraordinary event, an achievement which no demographer would expect to repeat!

Demographers and planners responsible for predicting future conditions would be most unwise to base their advice on only one set of numbers. At least two should be calculated as a check on one another, and commonly several sets are prepared based on different assumptions about changes in crucial underlying factors (in the case of population, about levels of fertility, migration and mortality; in the case of enrolment, about the numbers of children in the appropriate age groups, the participation rates in the non-compulsory attendance ages and the grade transition rates in the compulsory attendance ages). The figures of Table 4 use a series of age-specific fertility rates as well as age-specific death rates and assume net migration gains of 12,000 per year. Those of Table 5 are based on the same age-specific fertility rates but assume much greater migration, 36,000 net gain. Since the higher migration assumption proved to be closer to reality, the underprojection levels of certain age groups (particularly young workers) were less. For example, by 1966 the overall error in the second projection was an overprediction of 0.18%. The significance of the alternative assumption related to migration may be seen by comparing the error in certain age groups – e.g., those aged 20-24, -5.97% rather than -8.83%; those 25-29, -5.38% vs. -9.30%. This persisted to 1971 – e.g., overall the error was -1.10% rather

Appendix Table 4
COMPARISON BETWEEN ACTUAL AND PROJECTED POPULATION IN ONTARIO
ESTIMATE 1*

| Age Group | 1966 | | | 1971 | | | 1976 | | |
|-----------|-----------|-----------|-----------------|-----------|-----------|------------------|-----------|-----------|------------------|
| | Actual | Projected | Difference % | Actual | Projected | Difference % | Actual | Projected | Difference % |
| 0-4 | 745,744 | 781,300 | + 35,556 +4.77 | 637,255 | 867,400 | +230,145 +36.12 | 607,205 | 1,030,300 | +423,095 +69.68 |
| 5-9 | 770,061 | 738,800 | - 31,261 -4.06 | 783,515 | 777,400 | - 6,115 -0.78 | 667,815 | 862,100 | +194,285 +29.09 |
| 10-14 | 688,270 | 676,200 | - 12,070 -1.75 | 787,715 | 741,500 | - 46,215 -5.87 | 798,760 | 779,500 | - 19,260 -2.41 |
| 15-19 | 599,197 | 595,400 | - 3,797 -0.63 | 713,365 | 679,100 | - 34,265 -4.80 | 807,990 | 774,200 | - 33,790 -4.18 |
| 20-24 | 485,053 | 442,200 | - 42,853 -8.83 | 674,135 | 601,400 | - 72,735 -10.79 | 744,365 | 685,700 | - 58,665 -7.88 |
| 25-29 | 433,856 | 393,500 | - 40,356 -9.30 | 567,345 | 448,000 | - 119,345 -21.04 | 715,820 | 606,900 | - 108,920 -15.22 |
| 30-34 | 447,155 | 427,600 | - 19,555 -4.37 | 478,150 | 397,500 | - 80,650 -16.87 | 586,450 | 451,600 | - 134,850 -22.99 |
| 35-39 | 472,616 | 462,100 | - 10,516 -2.23 | 468,515 | 429,600 | - 38,915 -8.31 | 489,990 | 399,200 | - 90,790 -18.53 |
| 40-44 | 469,358 | 486,300 | + 16,942 +3.61 | 474,145 | 461,300 | - 12,845 -2.71 | 474,550 | 428,800 | - 45,750 -9.64 |
| 45-49 | 390,983 | 394,000 | + 3,017 +0.77 | 469,815 | 464,500 | - 5,315 -1.13 | 471,910 | 457,700 | - 14,210 -3.01 |
| 50-54 | 353,402 | 353,700 | + 298 +0.08 | 381,130 | 386,700 | + 5,570 +1.46 | 465,005 | 456,000 | - 9,005 -1.94 |
| 55-59 | 293,325 | 299,000 | + 5,675 +1.93 | 343,550 | 341,400 | + 2,150 +0.63 | 369,375 | 373,600 | + 4,225 +1.14 |
| 60-64 | 244,128 | 243,800 | - 328 -0.13 | 280,045 | 282,300 | + 2,255 +0.81 | 326,305 | 322,800 | - 3,505 -1.07 |
| 65-69 | 199,206 | 199,400 | + 194 +0.10 | 227,770 | 222,500 | - 5,270 -2.31 | 260,930 | 258,000 | - 2,930 -1.12 |
| 70-74 | 159,047 | | | 171,465 | | | | | |
| 75-79 | 108,536 | 378,300 | + 9,784 +2.65 | 120,960 | 426,900 | + 10,260 +2.46 | 476,215 | 478,300 | + 2,085 +0.44 |
| 80-84 | 63,193 | | | 74,375 | | | | | |
| 85+ | 37,740 | | | 49,840 | | | | | |
| Total | 6,960,870 | 6,853,600 | - 107,270 -1.54 | 7,703,105 | 7,527,500 | - 175,605 -2.28 | 8,264,465 | 8,334,700 | + 70,235 +0.85 |

Source: Population and Labour Force Projections for the Economic Regions of Ontario 1961-1986.

Economics Branch, Department of Economics and Development, Government of Ontario, December 1964.

*Net Migration to Ontario 10,000 Per Annum.

Net Internal Migration 2,000 Per Annum

Appendix Table 5
COMPARISON BETWEEN ACTUAL AND PROJECTED POPULATION IN ONTARIO
ESTIMATE 2*

| Age Group | 1966 | | | 1971 | | | 1976 | | |
|-----------|-----------|-----------|---------------|-----------|-----------|-----------------|-----------|-----------|-----------------|
| | Actual | Projected | Difference % | Actual | Projected | Difference % | Actual | Projected | Difference % |
| 0-4 | 745,744 | 804,800 | +59,056 +7.92 | 637,255 | 913,700 | +276,445 +43.38 | 607,205 | 1,097,600 | +490,395 +80.76 |
| 5-9 | 770,061 | 748,100 | -21,961 -2.85 | 783,515 | 805,300 | +21,785 +2.78 | 667,815 | 911,200 | +243,385 +36.44 |
| 10-14 | 688,270 | 683,000 | -5,270 -0.77 | 787,715 | 759,900 | -27,815 -3.53 | 798,760 | 815,200 | +16,440 +2.06 |
| 15-19 | 599,197 | 602,500 | +3,303 +0.55 | 713,365 | 694,300 | -19,065 -2.67 | 807,990 | 771,900 | -36,090 -4.47 |
| 20-24 | 485,053 | 456,100 | -28,953 -5.97 | 674,135 | 624,700 | -49,435 -7.33 | 744,365 | 719,200 | -25,165 -3.38 |
| 25-29 | 433,856 | 410,500 | -23,356 -5.38 | 567,345 | 477,900 | -89,445 -15.77 | 715,820 | 647,100 | -68,720 -9.60 |
| 30-34 | 447,155 | 441,700 | -5,455 -1.22 | 478,150 | 426,400 | -51,750 -10.82 | 586,450 | 492,900 | -93,550 -15.95 |
| 35-39 | 472,616 | 471,900 | -716 -0.15 | 468,515 | 452,500 | -16,015 -3.24 | 489,990 | 435,600 | -54,390 -11.10 |
| 40-44 | 469,358 | 474,500 | +5,142 +1.10 | 474,145 | 477,200 | +3,055 +0.64 | 474,550 | 457,000 | -17,550 -3.70 |
| 45-49 | 390,983 | 389,100 | -1,883 -0.48 | 469,815 | 475,200 | +5,385 +1.15 | 471,910 | 477,900 | +5,990 +1.27 |
| 50-54 | 353,402 | 356,500 | +3,098 +0.88 | 381,130 | 393,700 | +12,570 +3.30 | 465,005 | 469,700 | +4,695 +1.01 |
| 55-59 | 293,325 | 301,000 | +7,675 +2.62 | 343,550 | 346,300 | +2,750 +0.80 | 369,375 | 382,900 | +13,525 +3.66 |
| 60-64 | 244,128 | 245,200 | +1,072 +0.44 | 280,045 | 285,700 | +5,655 +2.02 | 326,305 | 329,000 | +2,695 +0.83 |
| 65-69 | 199,206 | 200,300 | +1,094 +0.55 | 227,770 | 224,800 | -2,970 -1.30 | 260,930 | 262,200 | +1,270 +0.49 |
| 70-74 | 159,047 | 379,500 | +10,984 +2.98 | 171,465 | 429,900 | +13,264 -3.18 | 476,215 | 483,800 | +7,585 +1.59 |
| 75-79 | 108,536 | | | 120,960 | | | | | |
| 80-84 | 63,193 | | | 74,375 | | | | | |
| 85+ | 37,740 | | | 49,840 | | | | | |
| Total | 6,960,870 | 6,973,700 | +12,830 +0.18 | 7,703,105 | 7,787,500 | +84,395 -1.10 | 8,264,465 | 8,753,200 | +488,735 +5.91 |

*Net Migration to Ontario 30,000 Per Annum

Net Internal Migration 6,000 Per Annum

than -2.28%, and those aged 20-24 were underprojected 7.33% instead of 10.79%; the error for those 25-29 was -15.77% vs. -21.04%.

However, in the projection of Table 5 to offset the greater overall accuracy and the lower young worker age group error, was an even higher error in the 0-4 age group figures. By 1966 its overprojection was 7.92% vs. 4.77% under the lower fertility assumption, by 1971 it was +43.38% vs. +36.12%. That the erroneous (too high) fertility assumptions, producing too high a number of births from 1961 on, were becoming cumulatively more important, overall, than the erroneous (too low) migration assumptions becomes evident by 1976. The error of the high migration forecast, overall, was +5.91%; of the low migration one, overall, it was only +0.85%. The error for the 0-4 age group was +80.76% vs. +69.68%, and for the 5-9 age group was +36.44% vs. 29.09%.

The provincial short term population projections are based on census data and the annual statistics and estimates of births, migrants and deaths. They are revised fairly frequently. For most school planning they have limited utility because they are not sufficiently detailed. However, they do offer a useful set of benchmarks to help us decide whether or not to use the more elaborate older set of long range projections. Tables 6 and 7 show TEIGA's short term projections calculated in 1969 and 1970 (for 1969-80 and 1970-81). Given the actual series of numbers of live births each year in the 1960s, the demographers assumed lesser fertility rates. Given the higher experienced migration, they assumed higher net migration figures. But they did not believe that the low actual fertility would continue, and made optimistic assumptions about the number of live births. This may be seen from their consistent overprediction error of the 0-4 age cohort, which was even higher in the later than the earlier revision

- in 1971, +0.10% (calculated in 1969)
- in 1971, +2.78% (calculated in 1970)
- by 1976, +4.51% (calculated in 1969)
- by 1976, +22.84% (calculated in 1970).

In Table 8 two recent TEIGA short term projections (one calculated in 1973 and one in 1976) are compared for 1976 with the projection of Statistics Canada (calculated in 1974). (These are all published projections, available to the public.) Other revisions (sometimes more than one in a year) are made by the government demographers for special policy purposes, as needed by some Ministry or other. If we hear of these and request them they are generally provided but these revisions do not have the "official" status of the published figures. The thing to be noted here is that, as the reduced fertility manifested itself, government demographers adjusted the age specific fertility rates of the projection assumptions. The estimated 0-4 figures reduce but not steadily because, although the expected fertility *rate* was

Appendix Table 6 COMPARISON BETWEEN ACTUAL AND PROJECTED POPULATION IN ONTARIO

| Age Group | 1971 | | | | 1976 | | | |
|-----------|-----------|-----------|------------|---------|-----------|-----------|------------|---------|
| | Actual | Projected | Difference | % | Actual | Projected | Difference | % |
| 0-4 | 637,255 | 627,900 | + 645 | + 0.10 | 607,205 | 634,600 | +27,395 | + 4.51 |
| 5-9 | 738,515 | 766,100 | - 7,415 | - 0.95 | 667,815 | 645,500 | - 22,315 | - 3.34 |
| 10-14 | 787,715 | 796,000 | + 8,285 | + 1.05 | 798,760 | 791,600 | - 7,160 | - .90 |
| 15-19 | 713,365 | 712,600 | - 765 | - 0.11 | 807,990 | 813,400 | + 5,410 | + .67 |
| 20-24 | 674,135 | 646,000 | - 28,135 | - 4.17 | 744,365 | 747,400 | + 3,035 | + .41 |
| 25-29 | 567,345 | 554,800 | - 12,545 | - 2.21 | 715,820 | 685,600 | - 30,220 | - 4.22 |
| 30-34 | 478,150 | 484,600 | + 6,450 | + 1.35 | 586,450 | 582,200 | - 4,250 | - .72 |
| 35-39 | 468,515 | 476,600 | + 8,085 | + 1.73 | 489,990 | 501,000 | +11,010 | + 2.25 |
| 40-44 | 474,145 | 487,300 | +13,155 | + 2.77 | 474,550 | 484,400 | + 9,850 | + 2.08 |
| 45-49 | 469,815 | 473,500 | + 3,685 | + 0.78 | 471,910 | 487,200 | +15,290 | + 3.24 |
| 50-54 | 381,130 | 388,600 | + 7,470 | + 1.96 | 465,005 | 467,200 | + 2,195 | + .47 |
| 55-59 | 343,550 | 344,700 | + 1,150 | + 0.33 | 369,375 | 377,900 | + 8,525 | + 2.31 |
| 60-64 | 280,045 | 279,200 | - 845 | - 0.30 | 326,305 | 326,200 | - 105 | - .03 |
| 65-69 | 227,770 | 223,000 | - 4,770 | - 2.09 | 260,930 | 253,900 | - 7,030 | - 2.69 |
| 70-74 | 171,465 | 172,300 | + 835 | + 0.49 | 197,270 | 192,100 | - 5,170 | - 2.62 |
| 75-79 | 120,960 | 124,400 | + 3,440 | + 2.84 | 137,020 | 135,000 | - 2,020 | - 1.47 |
| 80-84 | 74,375 | 71,500 | - 2,875 | - 3.87 | 82,955 | 82,800 | - 155 | - .19 |
| 85+ | 49,840 | 43,600 | - 6,240 | - 12.52 | 60,750 | 49,600 | - 11,150 | - 18.35 |
| Total | 7,703,105 | 7,682,700 | - 20,405 | - 0.26 | 8,264,465 | 8,257,600 | - 6,865 | - 0.08 |

Source: Ontario Short-term Population Projections 1969-1980
Economic Planning Branch, Policy Planning Division, Department of Treasury and Economics October 1969

Appendix Table 7 COMPARISON BETWEEN ACTUAL AND PROJECTED POPULATION IN ONTARIO

| Age Group | 1971 | | | | 1976 | | | |
|-----------|-----------|-----------|------------|--------|-----------|-----------|------------|--------|
| | Actual | Projected | Difference | % | Actual | Projected | Difference | % |
| 0-4 | 637,255 | 655,000 | +17,745 | + 2.78 | 607,205 | 745,900 | +138,695 | +22.84 |
| 5-9 | 783,515 | 783,400 | - 115 | - 0.01 | 667,815 | 672,900 | + 5,085 | + .76 |
| 10-14 | 787,715 | 800,200 | +12,485 | + 1.58 | 798,760 | 799,900 | + 1,140 | + .14 |
| 15-19 | 713,365 | 716,800 | + 3,435 | + 0.48 | 807,990 | 819,400 | +11,410 | + 1.41 |
| 20-24 | 674,135 | 658,800 | -15,335 | - 2.27 | 744,365 | 751,800 | + 7,435 | + 1.00 |
| 25-29 | 567,345 | 571,200 | + 3,855 | + 0.68 | 715,820 | 698,800 | - 17,020 | - 2.38 |
| 30-34 | 478,150 | 494,900 | +16,750 | + 3.50 | 586,450 | 599,700 | +13,250 | + 2.26 |
| 35-39 | 468,515 | 480,900 | +12,385 | + 2.64 | 489,990 | 512,100 | +22,110 | + 4.51 |
| 40-44 | 474,145 | 490,500 | -16,355 | + 3.45 | 474,550 | 489,200 | +14,650 | + 3.09 |
| 45-49 | 469,815 | 475,000 | + 5,185 | + 1.10 | 471,910 | 490,700 | +18,790 | + 3.98 |
| 50-54 | 381,130 | 389,800 | + 8,670 | + 2.27 | 465,005 | 468,700 | + 3,695 | + .79 |
| 55-59 | 343,550 | 345,900 | + 2,350 | + 0.68 | 369,375 | 379,100 | + 9,725 | + 2.63 |
| 60-64 | 280,045 | 280,200 | + 155 | + 0.06 | 326,305 | 327,500 | + 1,195 | + .37 |
| 65-69 | 227,770 | 224,000 | - 3,770 | - 1.66 | 260,930 | 255,200 | - 5,730 | - 2.20 |
| 70-74 | 171,465 | 173,000 | - 1,535 | + 0.90 | 197,270 | 193,200 | - 4,070 | - 2.06 |
| 75-79 | 120,960 | 125,400 | + 4,440 | + 3.67 | 137,020 | 136,800 | - 220 | - .16 |
| 80-84 | 74,375 | 72,300 | - 2,075 | - 2.79 | 82,955 | 84,700 | - 1,745 | - 2.10 |
| 85+ | 49,840 | 43,600 | - 6,240 | -12.52 | 60,750 | 50,500 | -10,250 | -16.87 |
| Total | 7,703,105 | 7,780,900 | +77,795 | + 1.01 | 8,264,465 | 8,476,100 | +211,635 | + 2.56 |

Source: Ontario Short-term Population Projections 1970-81, Economic Planning Branch, Policy Planning Division, Department of Treasury & Economics, September 1970.

Appendix Table 8 COMPARISON BETWEEN ACTUAL AND PROJECTED POPULATION IN ONTARIO

| Age Group | 1976 ¹ | | | 1976 ² | | | 1976 ³ | | |
|-----------|-------------------|-----------|-----------------|-------------------|-----------|-----------------|-------------------|-----------|-----------------|
| | Actual | Projected | Difference % | Actual | Projected | Difference % | Actual | Projected | Difference % |
| 0-4 | 607,205 | 699,411 | + 92,206 +15.19 | 607,205 | 632,104 | +24,899 + 4.10 | 607,205 | 707,700 | +100,495 +16.55 |
| 5-9 | 667,815 | 662,437 | - 5,378 - .81 | 667,815 | 659,615 | - 8,200 - 1.23 | 667,815 | 675,300 | + 7,485 + 1.18 |
| 10-14 | 798,760 | 802,944 | + 4,184 + .52 | 798,760 | 802,988 | + 4,228 + .53 | 798,760 | 810,300 | + 11,540 + 1.44 |
| 15-19 | 807,990 | 803,535 | - 4,455 - .55 | 807,990 | 808,275 | + 285 + .04 | 807,990 | 819,700 | + 11,710 + 1.45 |
| 20-24 | 744,365 | 749,901 | + 5,536 + .74 | 744,365 | 754,776 | +10,411 + 1.40 | 744,365 | 787,700 | + 43,335 + 5.82 |
| 25-29 | 715,820 | 730,104 | + 14,284 + 2.00 | 715,820 | 735,490 | +19,670 + 2.75 | 715,820 | 754,700 | + 38,880 + 5.43 |
| 30-34 | 586,450 | 607,674 | + 21,224 + 3.62 | 586,450 | 614,462 | +28,012 +14.78 | 586,450 | 616,500 | + 30,050 + 5.12 |
| 35-39 | 489,990 | 501,215 | + 11,225 + 2.29 | 489,990 | 503,704 | +13,714 + 2.80 | 489,990 | 504,200 | + 14,210 + 2.90 |
| 40-44 | 474,550 | 479,836 | + 5,286 + 1.11 | 474,550 | 480,516 | + 5,966 + 1.26 | 474,550 | 481,800 | + 7,250 + 1.53 |
| 45-49 | 471,910 | 475,821 | + 3,911 + .83 | 471,910 | 476,164 | + 4,254 + .90 | 471,910 | 477,200 | + 5,290 + 1.12 |
| 50-54 | 465,005 | 463,775 | - 1,230 - .26 | 465,005 | 464,141 | - 864 - .19 | 465,005 | 464,500 | - 505 - .11 |
| 55-59 | 369,375 | 370,140 | + 765 + .21 | 369,375 | 370,514 | + 1,139 + .31 | 369,375 | 371,400 | + 2,025 + .55 |
| 60-64 | 326,305 | 324,239 | - 2,066 - .63 | 326,305 | 324,452 | - 1,853 - .57 | 326,305 | 327,100 | + 795 + .24 |
| 65-69 | 260,930 | 254,313 | - 6,617 - 2.54 | 260,930 | 254,378 | - 6,552 - 2.51 | 260,930 | 257,000 | - 3,930 - 1.51 |
| 70-74 | 197,270 | 194,003 | - 3,267 - 1.66 | 197,270 | 194,176 | - 3,094 - 1.57 | 197,270 | 197,800 | + 530 + .27 |
| 75-79 | 137,020 | 131,671 | - 5,349 - 3.90 | 137,020 | 131,567 | - 5,453 - 3.98 | 137,020 | 137,300 | + 280 + .20 |
| 80-84 | 82,955 | 79,823 | - 3,132 - 3.78 | 82,955 | 79,634 | - 3,321 - 4.00 | 82,955 | 83,800 | + 845 + 1.02 |
| 85+ | 60,750 | 52,950 | - 7,800 - 12.84 | 60,750 | 52,724 | - 8,026 - 13.21 | 60,750 | 56,600 | - 4,150 - 6.83 |
| Total | 8,264,465 | 8,383,792 | +119,327 + 1.44 | 8,264,465 | 8,339,686 | +75,221 + 0.91 | 8,264,465 | 8,530,700 | +266,235 + 3.22 |

Sources: ¹Ontario Short-term Population Projections, 1971-1986, Demographic Studies Section, Economic Analysis Branch, Ministry of Treasury, Economics and Intergovernmental Affairs, January 1973.

²Ontario Short-term Population Projections, 1975-1986, Central Statistical Services, Ministry of Treasury, Economics and Intergovernmental Affairs, September 1976.

³Population Projections for Canada and Provinces 1972-2001, Catalogue 91-514 Occasional, Statistics Canada, June 1974.

lowered, it was not dropped sufficiently to compensate for the increased number of young adults in the fertile age groups. So for 1976 we have a provincial 0-4 age group estimate of 634,600 (calculated in 1969), then 745,900 (calculated in 1970), then 699,411 (calculated in 1973) and 632,104 (calculated in 1976); and a federal figure of 707,700 (calculated in 1974). The actual figure recorded by the 1976 census but not available (unpublished) until January 1978 was 607,205. The overprediction error which started (in the series of revisions quoted) at +4.51% grew to +22.84%, then dropped to +15.19% and finally rose to +4.10% -- which was only slightly better than the first revision of 1969.

In summary: Making long term population projections is a tricky business but it is possible to obtain a reasonable level of overall accuracy for total population. Indeed the long term accuracy often exceeds that of the short term projection except for one or two years forward, because the latter overcompensates for the dominant trend factor at the time of the revision. Migration in the 1960s reached levels in Ontario that no one expected, so there was consistent underprediction of the age cohorts of the young labour force years. Fertility dropped (and is still dropping) to levels that no one expected. Although a drop in birth rates was predicted, the large number of females in the fertile age groups led demographers to expect large numbers of births even from moderately low fertility rates. The births did not occur. Adjustments in the rates were made, but they were always too conservative. The high net gain from migration was expected (by the demographers preparing the short term revisions) to be maintained long after it ceased -- hence the overprediction errors in 1971 and 1976 in the age cohorts 30-34, 35-39, 40-44 (in the calculations of 1969) and in these three age cohorts and that of 25-29 in the calculations of 1970. If we look at the 1976 prediction for the age groups 25-44, the ones most involved in migration, and compare the calculations shown in Tables 6, 7 and 8 we note that the 1969 calculation is underpredicting the first two sub age groups (25-29; 30-34), the 1970 revision is underpredicting only the first one (25-29), the 1973 revision overpredicts all four sub groups, and that of 1976 has been adjusted too much -- it underpredicts the first one (25-29) again.

Demographers are generally cautious. They adjust slowly to unexpected reality. We shall keep in mind TEIGA's assumptions and review their series of revisions, but we shall also recognize our own inability to "see the woods for the trees". On balance these are very good forecasts, as technically excellent as any being produced, and some of CODE's twenty year enrolment projections will be based on the new TEIGA population projections, expected in April 1978.

Local Area Projections

The delivery of schooling in Ontario is a local service. Boards of education have responsibility for operating schools within certain legal and customary regulations, guidelines, incentives and constraints exercised by the provincial government. Therefore, for their policy decisions (budgeting, hiring teachers, building schools, defining programs, allocating children to appropriate programs and courses, deciding upon the resources of individual programs and schools) projections of enrolments are required for local systems and for the schools (and sometimes the service clientele) within systems. The best level for much of this work is the local one — the planner/administrator employee of the board prepares the projections. But an all-province benchmark is not very useful as a comparison set of figures for these people. Since 1976 OISE personnel under the Ministry contract have been annually preparing projections for 33 county boards (both public and separate), and eight urban boards as well as for the 11 northern districts. They do, of course, many more than 52 individual projections because public, separate and secondary school enrolment are all calculated individually. At first these figures were merely available for reference, being deposited in libraries at the Ministry's regional offices and in other offices of government. But beginning in 1973 the sets of figures have been distributed widely to boards and institutions of higher education, each board receiving a set of notes and tables about its own and related jurisdictions. OISE has never systematically produced annual figures for *all* the small boards of the North. The referent statistics on population and live births are not available. Nor has it produced them for the individual boards of Metropolitan Toronto, although it prepares a set for Metro as a whole. When this work started it was conceived as an aid to the new county boards. The area boards of Metro already had established planning offices manned by professional planners; they did not need such assistance.

The OISE contract projections are not intended to replace projections prepared by board staff, but to encourage them to calculate long term rather than merely short term projections, and to provide them with benchmark figures (particularly for comparison with their one-year forward estimates). OISE personnel, therefore, have not generally provided projections by school, except on special occasions at the request of individual boards. In enrolment forecasting at the community level it is exceedingly difficult to attain satisfactory accuracy. The figures for an individual school are peculiarly sensitive to board policy about the location of programs and the allocation of pupils to them, as well as to community conditions and the use of housing stocks over which school personnel have little influence and no control. The main use of board planners' projections has been for *very* short term decisions — one year forward — and the acceptance of the OISE figures as benchmarks rests on their one year accuracy. So we have striven for short

term accuracy even though, in our opinion, the long term accuracy of the figures is much more important in decision making.

In the planning demonstration studies which the OISE group and their former students are preparing for the Commission, local areas and groups of schools are being studied and their enrolment projected. In addition for each of the Southern Ontario boards, a 20 year enrolment projection will be calculated, instead of the usual 10 year one; for each of the small Northern boards, medium and long range (5 and 10 year) projections will be prepared. For the 20 year forecasts, by local system, we shall use the new TEIGA long range forecast based on the 1976 census data and fertility and migration assumptions agreed between TEIGA and OISE staff. For the school level projections of the demonstration studies we shall use a referent base of live births' statistics and housing data (adjusted according to our judgement).

Acceptance by school personnel of these estimates of future conditions is very important for the success of the Commission. Therefore, to permit interested parties to judge our short term accuracy for themselves, we reproduce here tables taken from our annual error analyses for 1972 to 1976. (These are sent to the Ministry automatically on the completion of each year's contract.) The "All-Ontario Report" each year gives an overall review of the shifts of enrolment occurring in the province, discusses trends which seem to be emerging and the common conditions which the statistics are revealing. It also includes tables showing our "league standing", i.e. the range of our one year forward error for all the projection sets. We shall use only the tables dealing with estimate 1 since that is the one generally recommended for use.

As may be seen from Tables 9 and 10, in the Summer 1973 calculations, the September 1973 elementary enrolment was predicted to within 1% or less for 28 out of the 53 county, district or urban public boards but for only 19 out of 53 of the separate school boards of comparable areas. We achieved a satisfactory level of accuracy in 38 cases for public boards but only 23 for separate ones. ("Satisfactory" is defined as 1.5% error or less, "good" as 1.0% error or less.) These boards vary a good deal in the size of their enrolment and some are quite small, although this table does not include most of the really small boards which are in Northern Ontario. Nevertheless since it is more difficult to predict accurately for a small group than a large, the size of the enrolment and the absolute size of the error are also a matter of interest. Short term forecasts for a school board carry serious budget implications. An error of 25-30 pupils represents a classroom or the cost of a portable (in an expanding system) and a teacher. So these tables show the error by absolute size and by the size of the system involved. For example, in 1973 (based on 1972 absolute figures) 21 of the 28 "good" projections of elementary enrolment for public systems involved an absolute error of 100 pupils or less; in 1974 (calculated in 1973) 17 of the 23; in 1975, 23 of 29

Appendix Table 9
TOTAL NUMBER OF COUNTY PROJECTIONS ACCORDING TO THE RANGE
OF ABSOLUTE ERROR OF ESTIMATE 1 OF TOTAL PUBLIC SCHOOL ENROLMENT, 1973-1977

| Absolute Error (Number of Pupils) | PERCENTAGE ERROR | | | | | | | | | | | | | | |
|--------------------------------------|------------------|------|------|------|------|-------------|------|------|------|------|-------------|------|------|------|------|
| | 1.0% and under | | | | | 1.1% - 1.5% | | | | | 1.6% - 2.5% | | | | |
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 |
| 100 and under | 21 | 17 | 23 | 20 | | 1 | 5 | 3 | 2 | | 4 | 1 | 2 | 0 | |
| 101 - 200 | 2 | 5 | 4 | 5 | | 6 | 2 | 3 | 2 | | 3 | 5 | 3 | 4 | |
| 201 - 300 | 2 | 1 | 1 | 3 | | 1 | 0 | 0 | 0 | | 1 | 2 | 1 | 1 | |
| 301 - 400 | 0 | 0 | 0 | 0 | | 2 | 2 | 2 | 2 | | 1 | 1 | 0 | 0 | |
| 401 - 500 | 3 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | | 1 | 1 | 1 | 0 | |
| 501 - 600 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 0 | 0 | 0 | |
| 601 - 700 | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | | 0 | 0 | 1 | 0 | |
| 701 and over | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 1 | | 0 | 1 | 1 | 1 | |
| Total Number of Counties | 28 | 23 | 29 | 28 | | 10 | 11 | 8 | 7 | | 11 | 11 | 9 | 6 | |

| Absolute Error (Number of Pupils) | PERCENTAGE ERROR | | | | | | | | | | | | | | |
|--------------------------------------|------------------|------|------|------|------|---------------|------|------|------|------|--------------------------|------|------|------|------|
| | 2.6% - 4.0% | | | | | 4.1% and over | | | | | Total Number of Counties | | | | |
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 |
| 100 and under | 0 | 0 | 1 | 1 | | 1 | 0 | 1 | 1 | | 27 | 23 | 30 | 24 | |
| 101 - 200 | 1 | 3 | 1 | 3 | | 1 | 0 | 0 | 0 | | 13 | 15 | 11 | 14 | |
| 201 - 300 | 0 | 0 | 1 | 2 | | 0 | 0 | 0 | 1 | | 4 | 3 | 3 | 7 | |
| 301 - 400 | 1 | 1 | 0 | 1 | | 0 | 0 | 0 | 0 | | 4 | 4 | 2 | 3 | |
| 401 - 500 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 4 | 2 | 1 | 0 | |
| 501 - 600 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 0 | 0 | 0 | |
| 601 - 700 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 1 | 0 | |
| 701 and over | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 2 | 2 | |
| Total Number of Counties | 2 | 4 | 3 | 7 | | 2 | 0 | 1 | 2 | | 53 | 49 | 50 | 50 | |

Appendix Table 10
TOTAL NUMBER OF COUNTY PROJECTIONS ACCORDING TO THE RANGE OF ABSOLUTE ERROR
OF ESTIMATE 1 OF TOTAL SEPARATE SCHOOL ENROLMENT, 1973-1977

| Absolute Error (Number of Pupils) | PERCENTAGE ERROR | | | | | | | | | | | | | | |
|--------------------------------------|------------------|------|------|------|------|-------------|------|------|------|------|-------------|------|------|------|------|
| | 1.0% and under | | | | | 1.1% - 1.5% | | | | | 1.6% - 2.5% | | | | |
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 |
| 100 and under | 16 | 18 | 13 | 12 | | 2 | 2 | 3 | 4 | | 9 | 1 | 8 | 4 | |
| 101 - 200 | 1 | 1 | 3 | 5 | | 2 | 4 | 3 | 1 | | 4 | 1 | 2 | 1 | |
| 201 - 300 | 1 | 1 | 0 | 0 | | 0 | 2 | 1 | 0 | | 1 | 0 | 0 | 1 | |
| 301 - 400 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 0 | 0 | 1 | |
| 401 - 500 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 0 | 0 | 0 | |
| 501 - 600 | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | |
| 601 - 700 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 701 and over | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| Total Number of Counties | 19 | 20 | 16 | 17 | | 4 | 9 | 7 | 5 | | 16 | 3 | 10 | 7 | |

| Absolute Error (Number of Pupils) | PERCENTAGE ERROR | | | | | | | | | | | | | | |
|--------------------------------------|------------------|------|------|------|------|---------------|------|------|------|------|--------------------------|------|------|------|------|
| | 2.6% - 4.0% | | | | | 4.1% and over | | | | | Total Number of Counties | | | | |
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 |
| 100 and under | 3 | 1 | 3 | 3 | | 5 | 6 | 4 | 4 | | 35 | 28 | 31 | 27 | |
| 101 - 200 | 1 | 0 | 1 | 1 | | 1 | 0 | 0 | 3 | | 9 | 6 | 9 | 11 | |
| 201 - 300 | 1 | 1 | 0 | 2 | | 0 | 1 | 1 | 0 | | 3 | 5 | 2 | 3 | |
| 301 - 400 | 0 | 1 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | 1 | 1 | 1 | |
| 401 - 500 | 1 | 1 | 0 | 0 | | 1 | 0 | 0 | 0 | | 3 | 1 | 0 | 0 | |
| 501 - 600 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 1 | 0 | 0 | |
| 601 - 700 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| 701 and over | 0 | 0 | 0 | 1 | | 1 | 0 | 0 | 0 | | 1 | 1 | 0 | 1 | |
| Total Number of Counties | 6 | 4 | 4 | 7 | | 8 | 7 | 6 | 7 | | 53 | 43 | 43 | 43 | |

and in 1976, 20 of the 28 met the standard. In 1973, 16 of the 19 good projections of enrolment for separate school systems involved an absolute error of 100 pupils or less; in 1974, 18 of the 20; in 1975, 13 of the 16; and in 1976, 12 of the 17.

Over the years we have found that we consistently predict the enrolment of certain boards well. These systems show great stability. In other cases no projection technique seems to work satisfactorily. The pacing of the growth of certain areas on the fringe of big cities, like Dufferin and Peel Counties, is difficult to gauge. It is particularly sensitive to economic factors which affect housing starts and house sales. We reproduce as Table 11 our most recent (1976) short term board error table from the "All Ontario Report". But, since CODE is more concerned with demonstrating long term than short term accuracy, we have prepared Table 12 to illustrate the long term board level accuracy of estimate 1. This table shows the error development from 1971. Kent County Public is an example of a good projection; Waterloo Public's is satisfactory; Hastings Public's is fair; Peel County Public's is poor and that for Peel Separate is very poor.

Secondary Enrolment – OISE Estimates

Estimating the secondary school population generally is more difficult than estimating elementary enrolment because (1) the transition from grade 8 to grade 9 fluctuates according to school policy decisions and (2) participation in the upper grades is voluntary and, in recent years, dropout rates have been growing, but not uniformly. On the other hand there is no need to predict the split of the enrolment between the public and separate systems – so that source of error is avoided. First we shall discuss the error history of the all-provincial projections (those of OISE and the Ministry) and then that of OISE's board projections.

Tables 13, 14 and 15 are comparable to Tables 1, 2 and 3. The table analyzing the projection by age has been included for information but not discussed, since the recommended projection (and that commonly used for comparison with Ministry or board figures) is the one by grade. Since the introduction of the credit system in Ontario's secondary schools, "grade" is a misnomer because the student accumulates "course credits" towards a graduation diploma, and the courses taken in any year are not of a uniform level of difficulty. However the term "grade" persists, and grade equivalents are reported in terms of numbers of course credits obtained.

In Table 13 the first projection shown is one calculated in 1966 for the 10-year period 1967-76 and published in OISE *Enrollment Projection Series Number 2*. The grade 9 and 10 (elementary/continuation) enrolment of the separate schools is included in the figures. In this projection grade 9 was

Appendix Table 11

COMPARISON BETWEEN 1976 ACTUAL AND PROJECTED TOTAL ELEMENTARY SCHOOL ENROLMENT
(ESTIMATE 1) BY GRADE, BY COUNTY OR DISTRICT AND SOME SELECTED CITIES IN ONTARIO

| County or District | Total Public School Enrolment | | | | Total Separate School Enrolment | | | | Total Elementary School Enrolment | | | |
|------------------------|-------------------------------|------------------|----------------|---------|---------------------------------|------------------|----------------|---------|-----------------------------------|------------------|----------------|---------|
| | Actual Number | Projected Number | Difference No. | Error % | Actual Number | Projected Number | Difference No. | Error % | Actual Number | Projected Number | Difference No. | Error % |
| Algoma | 11,936 | 12,017 | + 81 | +0.7 | 9,184 | 9,064 | - 120 | - 1.3 | 21,120 | 21,081 | - 39 | -0.2 |
| Brant | 10,923 | 10,638 | - 285 | -2.6 | 3,152 | 3,104 | - 48 | - 1.5 | 14,075 | 13,742 | - 333 | -2.4 |
| Bruce | 7,197 | 7,406 | +209 | +2.9 | 1,909 | 1,756 | -153 | - 8.0 | 9,106 | 9,162 | + 56 | +0.6 |
| Cochrane | 5,938 | 5,675 | - 263 | -4.4 | 10,390 | 10,452 | + 62 | + 0.6 | 16,328 | 16,127 | - 201 | -1.2 |
| Dufferin | 4,271 | 4,134 | - 137 | -3.2 | 331 | 325 | - 6 | - 1.8 | 4,602 | 4,460 | -142 | -3.1 |
| Elgin | 8,668 | 8,677 | + 9 | +0.1 | 1,501 | 1,560 | + 59 | + 3.9 | 10,169 | 10,238 | + 69 | +0.7 |
| Essex ² | 9,622 | 9,513 | -109 | -1.1 | 9,351 | 9,331 | - 20 | - 0.2 | 18,973 | 18,843 | -130 | -0.7 |
| Frontenac | 10,440 | 10,531 | + 91 | +0.9 | 3,085 | 2,923 | -162 | - 5.3 | 13,525 | 13,454 | - 71 | -0.5 |
| Grey | 9,343 | 9,305 | - 38 | -0.4 | 842 | 828 | - 14 | - 1.7 | 10,185 | 10,133 | - 52 | -0.5 |
| Haldimand | 4,353 | 4,408 | + 55 | +1.3 | 651 | 610 | - 41 | - 6.3 | 5,004 | 5,019 | + 15 | +0.3 |
| Haliburton | 1,498 | 1,508 | + 10 | +0.7 | — | — | — | — | 1,498 | 1,508 | + 10 | +0.7 |
| Halton | 28,099 | 28,482 | +383 | +1.4 | 7,454 | 7,504 | + 50 | + 0.7 | 35,553 | 35,986 | +433 | +1.2 |
| Hastings | 12,006 | 11,988 | - 18 | -0.1 | 3,330 | 3,316 | - 14 | - 0.4 | 15,336 | 15,304 | - 32 | -0.2 |
| Huron | 6,830 | 6,834 | + 4 | * | 1,345 | 1,271 | - 74 | - 5.5 | 8,175 | 8,106 | - 69 | -0.8 |
| Kenora | 6,337 | 6,528 | +191 | +3.0 | 1,490 | 1,530 | + 40 | + 2.7 | 7,827 | 8,058 | +231 | +2.9 |
| Kent | 10,787 | 10,673 | - 114 | -1.1 | 5,076 | 5,015 | - 61 | - 1.2 | 15,863 | 15,688 | -175 | -1.1 |
| Lambton | 13,068 | 12,719 | - 349 | -2.7 | 4,579 | 4,493 | - 86 | - 1.9 | 17,647 | 17,211 | -436 | -2.5 |
| Lanark | 4,850 | 4,836 | - 14 | -0.3 | 1,175 | 1,175 | — | * | 6,025 | 6,011 | - 14 | -0.2 |
| Leeds & Grenville | 9,472 | 9,395 | - 77 | -0.8 | 1,531 | 1,573 | + 42 | + 2.7 | 11,003 | 10,967 | - 36 | -0.3 |
| Lennox & Addington | 4,911 | 4,947 | + 36 | +0.7 | 671 | 776 | +105 | +15.6 | 5,582 | 5,723 | +141 | +2.5 |
| Manitoulin | 1,085 | 1,085 | — | * | 94 | 94 | — | * | 1,179 | 1,179 | — | * |
| Middlesex ¹ | 31,913 | 32,168 | +255 | +0.8 | 9,317 | 9,354 | + 37 | + 0.4 | 41,230 | 41,522 | +292 | +0.7 |
| Middlesex ² | 7,535 | 7,571 | + 36 | +0.5 | — | — | — | — | 7,535 | 7,571 | + 36 | +0.5 |
| Muskoka | 4,775 | 4,815 | + 40 | +0.8 | — | — | — | — | 4,775 | 4,815 | + 40 | +0.8 |
| Niagara Region | 37,454 | 37,728 | +274 | +0.7 | 17,177 | 16,902 | -275 | - 1.6 | 54,631 | 54,630 | - 1 | * |

Appendix Table 11 continued

| County or District | Total Public School Enrolment | | | | Total Separate School Enrolment | | | | Total Elementary School Enrolment | | | |
|------------------------------|-------------------------------|------------------|----------------|---------|---------------------------------|------------------|----------------|---------|-----------------------------------|------------------|----------------|---------|
| | Actual Number | Projected Number | Difference No. | Error % | Actual Number | Projected Number | Difference No. | Error % | Actual Number | Projected Number | Difference No. | Error % |
| Nipissing | 5,977 | 6,040 | + 63 | +1.1 | 7,858 | 7,943 | + 85 | +1.1 | 13,835 | 13,983 | +148 | +1.1 |
| Norfolk | 6,101 | 6,219 | +118 | +1.9 | 1,790 | 1,759 | - 31 | -1.7 | 7,891 | 7,978 | + 87 | +1.1 |
| Ottawa-Carleton ² | 21,320 | 21,439 | +119 | +0.6 | 12,870 | 12,994 | +124 | +1.0 | 34,190 | 34,432 | +242 | +0.7 |
| Oxford | 10,132 | 9,953 | -179 | -1.8 | 1,810 | 1,811 | + 1 | * | 11,942 | 11,763 | -179 | -1.5 |
| Parry Sound | 4,815 | 4,938 | +123 | +2.6 | - | - | - | - | 4,815 | 4,938 | +123 | +2.6 |
| Peel | 46,270 | 45,340 | -930 | -2.0 | 17,268 | 17,402 | +134 | +0.8 | 63,538 | 62,742 | -796 | -1.3 |
| Perth | 7,826 | 8,025 | +199 | +2.5 | 1,387 | 1,445 | + 58 | +4.2 | 9,213 | 9,470 | +257 | +2.8 |
| Prescott & Russell | 1,118 | 1,060 | - 58 | -5.2 | 6,609 | 6,587 | - 22 | -0.3 | 7,727 | 7,647 | - 80 | -1.0 |
| Prince Edward | 2,912 | 2,884 | - 28 | -1.0 | 104 | 103 | - 1 | -1.0 | 3,016 | 2,987 | - 29 | -1.0 |
| Rainy River | 2,981 | 3,072 | + 91 | +3.1 | 810 | 769 | - 41 | -5.1 | 3,791 | 3,840 | + 49 | +1.3 |
| Renfrew | 7,201 | 7,224 | + 23 | +0.3 | 5,348 | 5,424 | + 76 | +1.4 | 12,549 | 12,648 | + 99 | +0.8 |
| Stor. Dun. & Glen. | 6,694 | 6,831 | +137 | +2.0 | 7,733 | 7,512 | -221 | -2.9 | 14,427 | 14,343 | - 84 | -0.6 |
| Sudbury | 13,219 | 12,947 | -272 | -2.1 | 21,134 | 21,323 | +189 | +0.9 | 34,353 | 34,270 | - 83 | -0.2 |
| Thunder Bay | 13,887 | 13,920 | + 33 | +0.2 | 7,665 | 7,849 | +184 | +2.4 | 21,552 | 21,769 | +217 | +1.0 |
| Timiskaming | 3,883 | 3,885 | + 2 | +0.1 | 3,038 | 3,058 | + 20 | +0.7 | 6,921 | 6,943 | + 22 | +0.3 |
| Waterloo | 28,832 | 28,717 | -115 | -0.4 | 15,386 | 15,540 | +154 | +1.0 | 44,218 | 44,257 | + 39 | +0.1 |
| Wellington | 13,605 | 13,615 | + 10 | +0.1 | 4,579 | 4,430 | -149 | -3.3 | 18,184 | 18,046 | -138 | -0.8 |
| Wentworth ¹ | 37,555 | 37,328 | -227 | -0.6 | 20,478 | 20,841 | +363 | +1.8 | 58,033 | 58,169 | +136 | +0.2 |
| Wentworth ² | 11,594 | 11,551 | - 43 | -0.4 | - | - | - | - | 11,594 | 11,551 | - 43 | -0.4 |
| York ² | 25,439 | 25,138 | -301 | -1.2 | 6,376 | 6,154 | -222 | -3.5 | 31,815 | 31,292 | -523 | -1.6 |
| Hamilton | 25,961 | 25,800 | -161 | -0.6 | - | - | - | - | 25,961 | 25,800 | -161 | -0.6 |
| London | 24,378 | 24,561 | +183 | +0.8 | - | - | - | - | 24,378 | 24,561 | +183 | +0.8 |
| Ottawa | 17,138 | 17,250 | +112 | +0.7 | 17,711 | 17,746 | + 35 | +0.2 | 34,849 | 34,995 | +146 | +0.4 |
| Metro Toronto | 191,022 | 193,566 | +2544 | +1.3 | 77,886 | 80,415 | +2529 | +3.2 | 268,908 | 273,981 | +5073 | +1.9 |
| Windsor | 13,925 | 13,897 | - 28 | -0.2 | 15,755 | 15,919 | +164 | +1.0 | 29,680 | 29,816 | +136 | +0.5 |

¹County including City

²County excluding City

³No error or less than one tenth of one per cent

Appendix Table 12

ERROR ANALYSIS OF ELEMENTARY SCHOOL ENROLMENT
PROJECTIONS OF SOME SELECTED BOARDS IN ONTARIO
BY DEGREE OF ACCEPTED ACCURACY

| Year of Projection | GOOD Kent Public % | SATIS- FACTORY Waterloo Public % | FAIR Hastings Public % | POOR Peel Public % | VERY POOR Peel Separate % |
|-----------------------|-----------------------------|----------------------------------------------|---------------------------------|-----------------------------|------------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1971 | +0.17 | - 0.59 | - 0.54 | - 2.30 | - 3.05 |
| 1972 | +0.43 | - 0.30 | - 0.96 | - 4.63 | - 7.18 |
| 1973 | +0.45 | - 0.69 | - 0.20 | - 7.12 | - 14.10 |
| 1974 | - 0.60 | - 0.99 | - 1.99 | - 8.54 | - 22.87 |
| 1975 | - 1.54 | - 2.02 | - 3.06 | - 10.23 | - 31.98 |
| 1976 | - 0.88 | - 4.03 | - 4.54 | - 14.32 | - 40.96 |

Appendix Table 13A DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED SECONDARY SCHOOL ENROLMENTS
BY GRADE AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1967-76

| Year of Projection | Grade 9 | | Grade 10 | | Grade 11 | | Grade 12 | | Grade 13 | | Others | | Total | |
|-----------------------|---------|--------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|
| | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 |
| 1967 | -1.20 | -1.12 | -1.70 | -2.60 | -1.60 | -0.76 | -2.29 | -1.76 | -3.51 | -1.24 | +10.44 | -7.39 | -0.92 | -1.94 |
| 1968 | -0.36 | -0.61 | -3.08 | -3.77 | -5.01 | -4.80 | -6.81 | -5.12 | -10.51 | -7.84 | +17.03 | +1.26 | -2.66 | -3.33 |
| 1969 | -0.48 | -0.93 | -1.95 | -2.58 | -7.41 | -6.23 | -10.65 | -8.17 | -15.98 | -12.10 | +23.95 | +8.24 | -3.26 | -3.88 |
| 1970 | | | | | | | | | | | | | -4.65 | -4.16 |
| 1971 | | | | | | | | | | | | | -3.91 | -3.98 |
| 1972 | | | | | | | | | | | | | -1.88 | -2.02 |
| 1973 | | | | | | | | | | | | | +0.68 | +0.99 |
| 1974 | | | | | | | | | | | | | +2.48 | +3.52 |
| 1975 | | | | | | | | | | | | | +1.32 | +3.52 |
| 1976 | | | | | | | | | | | | | +1.09 | +4.32 |
| 1969 | +0.29 | +0.29 | +2.24 | +2.24 | +1.59 | +1.59 | +1.24 | +1.24 | +0.03 | +0.03 | +4.10 | +4.10 | +1.37 | +1.37 |
| 1970 | | | | | | | | | | | | | +2.75 | +2.55 |
| 1971 | | | | | | | | | | | | | +5.00 | +4.57 |
| 1972 | | | | | | | | | | | | | +8.13 | +7.27 |
| 1973 | | | | | | | | | | | | | +11.68 | +10.18 |
| 1974 | | | | | | | | | | | | | +14.57 | +12.39 |
| 1975 | | | | | | | | | | | | | +14.71 | +11.70 |
| 1976 | | | | | | | | | | | | | +15.96 | +11.52 |

Appendix Table 13B DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED SECONDARY SCHOOL ENROLMENTS
BY GRADE AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1972-76

| | Est. 1A | | Est. 1A | | Est. 1A | | Est. 1A | | Est. 1A | | Est. 1A | | Est. 1A | |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A | Est. 1A |
| 1972 | -0.74 | -1.74 | +2.06 | +1.97 | -1.54 | -0.04 | +6.45 | +8.69 | +4.82 | +5.64 | +1.50 | +1.98 | +1.50 | +1.98 |
| 1973 | -0.46 | -1.57 | +4.40 | +4.11 | +0.62 | +3.66 | +10.06 | +14.95 | +11.73 | +15.86 | +3.80 | +5.27 | +3.80 | +5.27 |
| 1974 | +3.50 | +1.92 | +5.02 | +4.78 | +3.09 | +6.05 | +9.42 | +16.92 | +12.43 | +19.35 | +5.60 | +7.66 | +5.60 | +7.66 |
| 1975 | +2.54 | +0.80 | +5.12 | +4.48 | +1.63 | +4.60 | +9.39 | +15.40 | +9.41 | +18.77 | +4.81 | +6.75 | +4.81 | +6.75 |
| 1976 | +2.61 | +1.03 | +4.58 | +3.79 | +0.75 | +3.35 | +8.18 | +14.17 | +11.83 | +19.50 | +4.48 | +6.27 | +4.48 | +6.27 |

1A Sum of all counties and districts

Appendix Table 14
DIFFERENCE BETWEEN ACTUAL AND O.I.S.E. PROJECTED SECONDARY SCHOOL ENROLMENTS BY AGE
AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO, 1973-76

| Year of Projection | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | Total | |
|-----------------------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|---------|---------|--------|---------|
| | Est. 2 | Est. 2A | Est. 2 | Est. 2A | Est. 2 | Est. 2A | Est. 2 | Est. 2A | Est. 2 | Est. 2A | Est. 2 | Est. 2A | Est. 2 | Est. 2A | Est. 2 | Est. 2A | Est. 2 | Est. 2A |
| 1973 | - 2.44 | - 7.19 | - 1.55 | + 1.19 | - 0.53 | - 2.47 | + 3.18 | + 2.78 | + 1.52 | + 1.76 | + 0.78 | + 1.85 | + 3.71 | + 2.38 | + 13.83 | + 15.48 | + 1.69 | + 1.49 |
| 1974 | +14.93 | + 9.48 | + 0.32 | + 3.15 | - 1.13 | - 3.06 | + 4.58 | + 2.08 | + 6.27 | + 6.12 | + 3.95 | + 5.30 | + 7.15 | + 6.98 | + 21.17 | + 22.39 | + 4.06 | + 3.41 |
| 1975 | +16.67 | +11.30 | + 0.41 | + 3.46 | - 0.12 | - 2.03 | + 4.59 | + 2.13 | + 5.98 | + 3.68 | + 4.77 | + 5.79 | + 6.30 | + 6.39 | + 19.82 | + 20.53 | + 4.28 | + 3.13 |
| 1976 | +46.59 | +39.87 | + 3.83 | + 6.76 | + 0.14 | - 1.78 | + 6.56 | + 4.08 | + 5.30 | + 3.08 | + 4.25 | + 3.14 | + 7.80 | + 7.57 | + 22.80 | + 23.16 | + 5.01 | + 3.46 |
| 1974 | +18.40 | +13.38 | + 1.86 | + 2.62 | + 0.72 | - 0.93 | + 0.09 | + 0.52 | - 0.25 | + 0.75 | + 0.34 | + 1.30 | + 0.06 | + 1.31 | - 12.28 | - 5.14 | + 0.03 | + 0.48 |
| 1975 | +20.20 | +15.25 | + 1.95 | + 2.70 | + 3.11 | + 0.18 | - 0.22 | + 0.11 | - 1.77 | - 0.34 | - 3.63 | - 1.69 | - 3.43 | - 1.55 | - 14.32 | - 7.06 | - 0.91 | - 0.44 |
| 1976 | +50.99 | +44.89 | + 5.42 | + 6.25 | + 3.34 | + 0.50 | + 3.02 | + 2.12 | - 2.71 | - 1.39 | - 5.30 | - 2.96 | - 6.68 | - 4.10 | - 12.58 | - 5.83 | - 0.65 | - 0.32 |
| 1975 | - 6.64 | | - 0.11 | | + 1.51 | | - 0.09 | | - 1.86 | | - 4.50 | | - 5.26 | | - 9.22 | | - 1.58 | |
| 1976 | +17.29 | | + 3.29 | | + 1.74 | | + 2.28 | | - 2.59 | | - 6.48 | | - 8.96 | | - 7.64 | | - 1.58 | |
| 1976 | +26.70 | | + 3.90 | | + 0.69 | | + 0.76 | | - 0.91 | | - 1.01 | | + 0.62 | | + 5.72 | | + 0.37 | |

Estimate 2A is the sum of all counties and districts.

Appendix Table 15 DIFFERENCE BETWEEN ACTUAL AND MINISTRY PROJECTED SECONDARY SCHOOL ENROLMENTS
BY GRADE AS A PERCENTAGE OF ACTUAL ENROLMENTS IN ONTARIO 1971-76

| Year of Projection | Grade 9 | | Grade 10 | | Grade 11 | | Grade 12 | | Grade 13 | | Others | | Total | |
|-----------------------|---------|--------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|
| | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 | Est. 1 | Est. 2 |
| 1971 | | | | | | | | | | | | | +1.63 | |
| 1972 | | | | | | | | | | | | | +3.91 | |
| 1973 | | | | | | | | | | | | | +6.82 | |
| 1974 | | | | | | | | | | | | | +9.52 | |
| 1975 | | | | | | | | | | | | | +9.41 | |
| 1976 | | | | | | | | | | | | | +9.63 | |
| 1972 | -0.99 | | +1.45 | | -1.45 | | +5.32 | | +5.70 | | | | +1.18 | |
| 1973 | -1.04 | | +3.49 | | +0.16 | | +7.67 | | +11.80 | | | | +2.92 | |
| 1974 | +2.89 | | +3.91 | | +1.83 | | +6.16 | | +11.26 | | | | +4.21 | |
| 1975 | +2.03 | | +4.01 | | +0.22 | | +4.00 | | +7.56 | | | | +2.97 | |
| 1976 | +2.04 | | +3.56 | | -0.59 | | +2.62 | | +7.37 | | | | +2.42 | |
| 1973 | -0.21 | | +3.12 | | +1.52 | | +2.33 | | +4.85 | | | | +1.85 | |
| 1974 | +3.71 | | +3.34 | | +3.93 | | +0.57 | | +5.08 | | | | +3.23 | |
| 1975 | +2.88 | | +3.33 | | +1.96 | | -0.48 | | +1.39 | | | | +2.06 | |
| 1976 | +2.72 | | +2.92 | | +1.04 | | -2.02 | | +2.15 | | | | +1.49 | |
| 1974 | +2.24 | | -0.62 | | +0.15 | | -4.69 | | -3.22 | | | | -0.61 | |
| 1975 | +1.75 | | -2.42 | | -2.46 | | -8.73 | | -9.71 | | | | -3.08 | |
| 1976 | +1.13 | | -2.48 | | -5.15 | | -11.17 | | -11.95 | | | | -4.55 | |
| 1975 | -2.95 | | -3.30 | | -1.05 | | -2.22 | | -4.32 | | | | -2.62 | |
| 1976 | -2.86 | | -4.69 | | -3.84 | | -4.11 | | -6.84 | | | | -4.10 | |
| 1976 | -2.17 | | +0.43 | | -0.96 | | +0.32 | | +1.83 | | | | -0.46 | |

derived by reference to live births nine years earlier. From 1970 on the Ministry included the enrolment of vocational courses in the appropriate grade figures, instead of separately. Therefore there is no point in comparing the error of our predicted grade figures — we were predicting a different grade “condition” — only the row totals for 1970-76 are given. By 1976 the 1966 calculation had accumulated an overprojection error of only 1.09%. It started out well with an underestimation of less than 1% but this rose rapidly to a peak of -4.65% by 1970. Thereafter, however, the error reduced even more quickly (to -0.68% by 1973) and its direction changed — from under to overestimation.

The 1968 projection was not anything like as good. It started badly and deteriorated drastically, from a one year forward error of +1.37% to an 8 year forward one of +15.96%. This is the projection which was published in Series No. 5. It excluded the grade 9 and 10 elementary/continuation enrolment and the reason why only the row figures are reviewed from 1970 on is the same one as that referred to above. In the 1968 projections we used the regression technique. That year's experience taught us that a mathematically more sophisticated projection technique (and hence more attractive to a set of academics) does not necessarily produce a better prediction. In fact, the simpler the technique the better, if one can only hit upon a good referent indicator. However academics like elegant solutions as well as workable ones, so we have continued to experiment with a variety of mathematical forecasting calculations. Currently we use six to check estimate 1 (which is really based on our judgement of the grade transition trends and the relationship of births several years earlier to entering school cohorts in the forecast year).

Starting in 1971 secondary enrolment projections were calculated for 37 counties, 5 urban boards and 11 districts so the table shows estimate 1 and estimate 1A, the “A” being the sum of the board projections. The calculations of 1971 were more successful than those of 1968. From that year onward the category “others” was not included as a separate category (in other words we had accommodated to the Ministry's change in its statistical system), so all the grade projections are analyzed for error as well as the row totals. The 1971 calculations started with a one year forward error of +1.50% and by 1976 the error had risen to +4.48%. The secondary school turn around from absolute increase to absolute decrease was predicted (in 1971) to start in 1978. We still expect it to start that year. The 1972 calculation started as a good one (+0.91%) but in one year rose too high (+1.82%); however, it dropped rapidly thereafter and for the next two years has been quite acceptable.

The 1973 projection had a very good one year forward accuracy (most important for credibility with the users), -0.59%, but its error mounts rapidly (a decided weakness in our opinion), to -4.08% by 1976 so we would judge it

as a failure. However, it should be noted that the 1966 calculations also had accumulated a fairly high error, -4.65, early on (in four years) but that was the error peak and by the 10 year mark (1976) the error was not much higher than the one year forward level, although of a reversed sign (e.g., +1.09% vs. -0.92%). The 1976 secondary school enrolment (OISE) projection errors were as follows:

- +0.34% (as calculated the year before in 1975)
- 2.39% (calculated in 1974)
- 4.08% (calculated in 1973)
- 0.55% (calculated in 1972)
- +4.48% (calculated in 1971)
- +15.96% (calculated in 1968)
- +1.09% (calculated in 1966)

The 1975 secondary school enrolment (OISE) projection errors were as follows:

- 1.68 (calculated in 1974)
- 2.95 (calculated in 1973)
- +0.25 (calculated in 1972)
- +4.81 (calculated in 1971)
- +14.71 (calculated in 1968)
- +1.32 (calculated in 1966)

In summary: Apart from the 1968 calculation (which we quite quickly abandoned as a complete failure, and which has been out of print for some years and now is only of historical interest) our all-Ontario projections generally show a "good" or "satisfactory" error level one year forward and a fairly good error performance 10 years ahead. Some of them also show reasonable medium range accuracy (2 or 3 years forward) but quite commonly their error accumulates to about the 4-5% mark after three or four years. Then it begins to reduce. We only have one example running the whole 10 years (1966's) and we shall not know until 1981 whether the 1971 calculations, which seem to be developing a similar pattern will eventually show a 10 year error below the initial 1.50% level. The 1972 calculations are preserving an exceptional accuracy, but those of 1973 have already mounted above the 4% mark. We shall not know until 1982 and 1983 whether the low errors of the former are maintained and whether the latter begins to reduce in, say 1977 or 1978, and eventually reaches a level of about 0.5%.

In any case, what we found with the review of the elementary enrolment projections seems to be the case with the secondary. We are able to achieve a long term (10 year) accuracy more readily than a medium range one. We try, and generally do, achieve one year accuracy so that our estimates are useful for our board clients.

Secondary Enrolment — The Ministry Estimates

We have Ministry published projections dating from July 7, 1971. Since the first one included the "vocational" category abandoned in 1970 only the row totals have been analyzed (see Table 15). Thereafter, since the projection eliminated the vocational category, the grade errors have also been analyzed. Their projection of 1971 enrolment was an overestimate of +1.63% which was initially fairly satisfactory, but the projection was not really a successful one; its error mounted rapidly, to +9.63% by 1976. It should be classed with the OISE 1968 calculations, but perhaps it will not prove to be a "goof" of the same dimension. In any case, the 1971 and 1972 calculations are good and it is interesting to note that they are showing the same type of development as the OISE estimates, i.e. the error mounts for two or three years and then recedes. The 1974 projection started very well indeed, with a one year forward error of only -0.61% but it seems to be rapidly developing a high intermediate range error (-4.55% by 1976). The 1976 calculation was excellent; its one year forward error was only -0.46%. The 1976 secondary school enrolment (Ministry) projection errors were as follows (the OISE comparable figures have been put on the right, for reference):

| | |
|-----------------------------|---------------|
| -0.46% (calculated in 1975) | +0.34% |
| -4.10% (calculated in 1974) | -2.39% |
| -4.55% (calculated in 1973) | -4.08% |
| +1.49% (calculated in 1972) | -0.55% |
| +2.42% (calculated in 1971) | +4.48% |
| +9.63% (calculated in 1970) | — |
| | +15.96 (1968) |
| | + 1.09 (1966) |

The 1975 secondary school enrolment (Ministry) projection errors were as follows:

| | |
|-----------------------------|---------------|
| -2.62% (calculated in 1974) | -1.68% |
| -3.08 (calculated in 1973) | -2.95 |
| +2.06 (calculated in 1972) | +0.25 |
| +2.97 (calculated in 1971) | +4.81 |
| +9.41 (calculated in 1970) | — |
| | +14.71 (1968) |
| | + 1.32 (1966) |

In summary: The education authorities in Ontario for at least a decade have had available for their use two sets of recurring projections of provincial secondary school enrolment which have had good short term accuracy (one year forward) and reasonably good long term accuracy (5-10 years forward). Even for the intermediate range, except in one set of poor calculations put out by OISE and one by the Ministry, the greatest error was generally well below 5%.

Board Level Secondary School Projections

As far as we know, the OISE personnel are the only group preparing annual secondary school enrolment projections for all the Ontario county and urban boards of education and, occasionally, for the small school boards in the North. They have done this since 1971, on the Ministry contract described above, and since 1972 an “All-Ontario Report” has been submitted at the end of the contract work, showing their error “score”.

Table 16 shows the range of errors from the 1973 projection (calculated in Summer 1973) to that of 1976.

In the 1973 calculations we achieved a good one year forward projection for 16 of the 53 boards and a satisfactory one for another 8 – if we use the same error criteria for the secondary school as for the elementary. If we relax the criteria to accepting as satisfactory an error up to 2.5% the total would be 41 out of 53. In the following years the number of good projections was 25 out of 58, 14 out of 53 and 25 out of 48. The changing total number is due to two developments – (1) estimate 2 is derived from an estimate of the number of 6 year olds and we do not have these figures for the five urban boards, and (2) we could not prepare projections for the new regional Durham/Northumberland board, or the remnants of the former boards from which it was created, because the region was put together in such a fashion as to completely ignore the former jurisdictions (i.e., it split them) and thus it upset the historical time series of statistics with which we work. If we accept the lower criterion of satisfactory being 2.5% error or less, then we prepared 44 out of 58, 34 out of 53, and 41 out of 48 satisfactory short term (one year forward) projections of local boards’ secondary school population. Table 17 shows our most recent (1976) error in the board secondary school enrolment projections. This, of course, is the one year forward error.

Teacher Supply/Demand Projections

Projections of teacher supply/demand are of a different order from school enrolment projections. They, in effect, start from the opposite question. They are not an answer to the question “How many students do you think there will likely be next year (or 10 years) hence?” They start with the question, “Given the number of school children, the likely losses to the current teacher force through normal attrition, and the likely number of re-entering experienced and qualified teachers wishing to be employed, how many new teacher graduates ought we to produce?” From the number of graduates, looking at the usual success/dropout/grade transition rates, we can then derive the enrolment (by year) which should produce that number of graduates – provided the institutions do not change their standards, their promotion policies or their program requirements. If they were more selective they might “fail”

Appendix Table 16
TOTAL NUMBER OF COUNTY PROJECTIONS ACCORDING TO THE RANGE OF ABSOLUTE ERROR
OF ESTIMATE 1 OF TOTAL SECONDARY SCHOOL ENROLMENT, 1973-1977

| Absolute Error (Number of Pupils) | PERCENTAGE ERROR | | | | | | | | | | | | | | |
|--------------------------------------|------------------|------|------|------|------|-----------|------|------|------|------|-----------|------|------|------|------|
| | 1.0% and under | | | | | 1.1 - 1.5 | | | | | 1.6 - 2.5 | | | | |
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 |
| 100 and under | 16 | 20 | 14 | 23 | | 6 | 1 | 4 | 3 | | 3 | 5 | 3 | 3 | |
| 101 - 200 | 0 | 2 | 0 | 1 | | 0 | 3 | 2 | 3 | | 8 | 5 | 0 | 2 | |
| 201 - 300 | 0 | 1 | 0 | 1 | | 2 | 1 | 2 | 1 | | 1 | 1 | 1 | 1 | |
| 301 - 400 | 0 | 0 | 0 | 0 | | 0 | 0 | 3 | 1 | | 4 | 0 | 0 | 1 | |
| 401 - 500 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 1 | 1 | 1 | |
| 501 - 600 | 0 | 0 | 0 | 0 | | 0 | 1 | 1 | 0 | | 1 | 0 | 1 | 0 | |
| 601 - 700 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 1 | 1 | 0 | |
| 701 and over | 0 | 2 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 1 | |
| Total Number of Counties | 16 | 25 | 14 | 25 | | 8 | 6 | 12 | 8 | | 18 | 13 | 8 | 8 | |

| Absolute Error (Number of Pupils) | PERCENTAGE ERROR | | | | | | | | | | | | | | |
|--------------------------------------|------------------|------|------|------|------|---------------|------|------|------|------|--------------------------|------|------|------|------|
| | 2.6% - 4.0% | | | | | 4.1% and over | | | | | Total Number of Counties | | | | |
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 | 1973 | 1974 | 1975 | 1976 | 1977 |
| 100 and under | 2 | 3 | 2 | 2 | | 2 | 3 | 1 | 0 | | 29 | 32 | 24 | 31 | |
| 101 - 200 | 1 | 0 | 6 | 1 | | 1 | 2 | 0 | 0 | | 10 | 12 | 8 | 7 | |
| 201 - 300 | 0 | 3 | 3 | 3 | | 0 | 1 | 1 | 0 | | 3 | 7 | 7 | 6 | |
| 301 - 400 | 1 | 0 | 0 | 1 | | 1 | 0 | 2 | 0 | | 6 | 0 | 5 | 2 | |
| 401 - 500 | 1 | 1 | 1 | 0 | | 0 | 0 | 0 | 0 | | 1 | 2 | 2 | 2 | |
| 501 - 600 | 0 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | 1 | 3 | 0 | |
| 601 - 700 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 1 | 1 | 1 | 0 |
| 701 and over | 1 | 1 | 2 | 0 | | 1 | 0 | 0 | 0 | | 2 | 3 | 3 | 3 | 0 |
| Total Number of Counties | 6 | 8 | 14 | 7 | | 5 | 6 | 5 | 0 | | 53 | 58 | 53 | 48 | |

Appendix Table 17 COMPARISON BETWEEN 1976 ACTUAL AND PROJECTED
(ESTIMATE 1) TOTAL SECONDARY SCHOOL ENROLMENT
BY GRADE, AND BY COUNTY, DISTRICT OR CITY IN ONTARIO

| County or District | Actual No. | Projected No. | Difference No. | Error % |
|--------------------|------------|---------------|----------------|---------|
| Algoma | 10,117 | 9,869 | - 248 | - 2.5 |
| Brant | 6,744 | 6,864 | +120 | +1.8 |
| Bruce | 3,632 | 3,643 | + 11 | +0.3 |
| Carleton | 15,134 | 14,915 | - 219 | - 1.4 |
| Cochrane | 8,813 | 8,571 | - 242 | - 2.7 |
| Dufferin | 2,351 | 2,325 | - 26 | - 1.1 |
| Elgin | 4,855 | 4,721 | - 134 | - 2.8 |
| Essex | 8,687 | 8,841 | +154 | +1.8 |
| Frontenac | 8,135 | 8,066 | - 69 | - 0.8 |
| Grey | 5,552 | 5,762 | +210 | +3.8 |
| Haldimand | 2,975 | 3,002 | + 27 | +0.9 |
| Haliburton | 676 | 702 | + 26 | +3.8 |
| Halton | 20,935 | 20,491 | - 444 | - 2.1 |
| Hastings | 9,198 | 9,067 | - 131 | - 1.4 |
| Huron | 4,689 | 4,735 | + 46 | +1.0 |
| Kenora | 4,030 | 4,003 | - 27 | - 0.7 |
| Kent | 8,370 | 8,491 | +121 | +1.4 |
| Lambton | 8,897 | 8,951 | + 54 | +0.6 |
| Lanark | 3,619 | 3,649 | + 30 | +0.8 |
| Leeds & Grenville | 6,232 | 6,180 | - 52 | - 0.8 |
| Lennox & Addington | 2,725 | 2,784 | + 59 | +2.2 |
| Niagara Region | 26,988 | 27,009 | + 21 | +0.1 |
| Manitoulin | 931 | 960 | + 29 | +3.1 |
| Middlesex | 4,373 | 4,425 | + 52 | +1.2 |
| Muskoka | 2,835 | 2,816 | - 19 | - 0.7 |
| Nipissing | 7,467 | 7,467 | * | * |
| Norfolk | 4,004 | 4,015 | + 11 | +0.3 |
| Oxford | 6,298 | 6,287 | - 11 | - 0.2 |
| Parry Sound | 2,718 | 2,750 | + 32 | +1.2 |
| Peel | 28,784 | 28,940 | +156 | +0.5 |
| Perth | 5,540 | 5,629 | + 89 | +1.6 |
| Prescott & Russell | 4,251 | 4,161 | - 90 | - 2.1 |
| Prince Edward | 1,497 | 1,488 | - 9 | - 0.6 |
| Rainy River | 2,264 | 2,282 | + 18 | +0.8 |
| Renfrew | 7,855 | 7,745 | - 110 | - 1.4 |
| Stor. Dun. & Glen. | 9,232 | 9,253 | + 21 | +0.2 |
| Sudbury | 16,554 | 16,569 | + 15 | +0.1 |
| Thunder Bay | 11,752 | 11,290 | - 462 | - 3.9 |
| Timiskaming | 4,285 | 4,302 | + 17 | +0.4 |
| Waterloo | 17,850 | 18,164 | +314 | +1.8 |
| Wellington | 8,695 | 8,956 | +261 | +3.0 |
| Wentworth | 7,471 | 7,429 | - 42 | - 0.6 |
| York | 16,446 | 16,376 | - 70 | - 0.4 |
| Hamilton | 18,710 | 18,715 | + 5 | * |
| London | 18,554 | 18,626 | + 72 | +0.4 |
| Ottawa | 25,211 | 25,550 | +339 | +1.3 |
| Metro Toronto | 140,355 | 140,112 | - 243 | - 0.2 |
| Windsor | 12,910 | 12,844 | - 66 | - 0.5 |

*No error or less than one tenth of one percent

more candidates, so a given enrolment would yield fewer graduates. If they add required courses, they might well have the effect of lengthening the whole processing time. If the flow of qualified candidates from secondary schools (for entry to the concurrent four year B.A./B.Ed. programs) or from the undergraduate faculties (for entry to the “end on” one year training after the first degree level) is inadequate the *de facto* enrolment each year will fall short of the target enrolment. Then the planner would have either to change the estimated flow (induce a larger share of the pool to apply for this training rather than some other) or change the assumptions about the share of each year’s teacher demand which will be satisfied by new graduates from the domestic teacher training institutions. In the latter case the projected target of graduates is reduced and, therefore, the projected enrollment must be reduced as well (to levels more likely to approach the actual level). In the former case some incentive is provided (scholarships, reduced or free tuition, pay rises for the teacher force differentially more favourable than those awarded rival occupations) sufficient to affect the university students’ program choice.

What we now have is the reverse condition – decline in the expected numbers of elementary and secondary school pupils will reduce the need for teachers and fears of redundancy will reduce attrition rates. Therefore the total annual demand will be less. Precisely how high it will be each year depends upon what the overall pupil:teacher ratio will be, what attrition rates are assumed and what share of the new hirings is allocated to new graduates *vs.* re-entering teachers. If the condition of teacher surplus continues for some time, as we expect, new factors are likely to emerge such as preferential transfer arrangements, whereby current employees are fitted with any teacher job openings which emerge – first, perhaps, within the system by sector, then within the system but across the elementary/secondary panels, then by panel across local system authority lines perhaps on a regional basis and then, perhaps, across the public and separate system lines. The reasonable limits of “assumptions”, in these new conditions, are not known. The estimated attrition rates, share of new graduates *vs.* re-entrants, the annual PTR etc. can be decided by a trend analysis of the recent past or it can be fixed as a policy decision (one’s best guess of the likely negotiated outcome, or one’s best guess of the likely equitable solution of competing interests). Whatever the planner’s decision, the projection’s accuracy (when checked against the actual number of teachers employed and their “source”) rests on judgement about a number of “contests”. The planner is most unlikely to be accurate in judging them all, but there will, likely, be compensating errors. The teacher demand projections reviewed here are unpublished figures produced for the Ministry contract referred to above. They use the historical trend to fix the PTR, either a trend or a fixed rate to determine each component of annual withdrawals (which combined make up the annual attrition)

and a trend to fix the success of the re-entrants *vs.* the hiring of new graduates. In other words the new graduate can either be treated as the residual; he/she then gets that share of the new hirings which is left over when all others have been satisfied (based on the share which in recent years the others actually obtained), or the new graduate can be assigned a given percentage of all hirings and all the “rest” are treated as the residual. The “trend” figures will be too high if the existing teacher force bargains hard to avoid layoff of its members and by a series of “forced transfers” tries to fit all current staff (provincially) before any “new” hirings can take place. They will also be too high if, in the new hirings, the re-entrants achieve a greater share than has hitherto been the case, or if the unemployed graduates of recent years, who have not yet entered the teacher force, win the jobs over the current year’s graduate candidate. The overall teacher demand would be too high if the enrolment projection error is positive (overestimate) if the assumed number of pupils per teacher is lower than that which actually occurs, or the assumed attrition rates are higher than those which actually occur.

The “trend” figures will be too low if various policy decisions are made which did not operate during the trend years — if, for example, a quota of each year’s new hirings were to be assigned to new graduates and boards were required to hire a given number of new graduates before any transfers were attempted between the elementary/secondary sectors, local jurisdictions or systems. At present there is little transferring between the elementary and secondary panels. Boards are not generally required to recognize the seniority a teacher may have had with another board. They are not generally required to choose currently employed, redundant teachers from other boards before interviewing re-entrants or new graduates. And at present the Separate School System generally requires its teachers to be practising Roman Catholics. The estimated new graduate supply figures would be too low if a policy were adopted “fixing” the enrolment of each teacher education institution according to some formula based on its past enrolment or based on its “capacity” (space and personnel), or on the job placement of its graduates. In effect, such limitations, if they were set much higher than the expected hirings of new graduates, would represent an agreement that pre-professional training is not the only (or even the main) role of faculties of education; that they are providing “general” higher education and may accept as many applicants as they can accommodate. This claim has recently been voiced by some Deans of Education. If this were policy, our past estimates of teacher supply (and hence our student teacher enrolment projections) would quickly develop a high underprojection error, because they did not assume such a policy.

We reproduce here some of the tables of last year’s teacher supply/demand report to the Ministry of Education. Appendix Table 18 shows the historical

Appendix Table 18

PUPILS AND TEACHERS IN ONTARIO ELEMENTARY SCHOOLS

| Year | | Pupils | Teachers | Pupil/Teacher Ratio |
|------|---|-----------|----------|------------------------|
| 1958 | | 1,027,598 | 33,074 | 31.1 |
| 1959 | | 1,081,649 | 35,241 | 30.7 |
| 1960 | A | 1,126,388 | 36,533 | 30.8 |
| 1961 | | 1,163,053 | 38,079 | 30.5 |
| 1962 | C | 1,197,029 | 39,249 | 30.5 |
| 1963 | | 1,233,164 | 40,875 | 30.2 |
| 1964 | T | 1,278,473 | 42,750 | 29.9 |
| 1965 | | 1,320,043 | 44,967 | 29.4 |
| 1966 | U | 1,364,871 | 47,647 | 28.6 |
| 1967 | | 1,405,052 | 51,018 | 27.5 |
| 1968 | A | 1,430,590 | 54,587 | 26.2 |
| 1969 | | 1,456,117 | 57,587 | 25.3 |
| 1970 | L | 1,465,488 | 59,307 | 24.7 |
| 1971 | | 1,456,840 | 58,329 | 25.0 |
| 1972 | | 1,445,101 | 57,991 | 24.9 |
| 1973 | | 1,422,885 | 56,630 | 25.1 |
| 1974 | | 1,404,839 | 56,678 | 24.8 |
| 1975 | | 1,389,478 | 58,167 | 23.9 |
| 1976 | P | 1,361,930 | 57,709 | 23.6 |
| 1977 | R | 1,335,570 | 56,592 | 23.6 |
| 1978 | | 1,303,695 | 55,241 | 23.6 |
| 1979 | O | 1,284,015 | 54,408 | 23.6 |
| 1980 | J | 1,272,635 | 53,925 | 23.6 |

and projected (OISE estimate 1) elementary school enrolment, teachers and pupil:teacher ratio (i.e., actual relationship of teachers to pupils and an assumed ratio, for 1976-80, of 23.6). For 1976 we overestimated the enrolment; it was 1,360,085 instead of 1,361,910. But we also overestimated the ratio. The year before it had been 23.9. We thought it would drop to 23.6; it fell even more, to 23.5. We thought the “gross demand” for teachers would be 57,709 ($1,361,930 \div 23.6$); actually 57,807 were employed; our underestimate was an error of 98 in absolute figures, -0.17%.

Appendix Table 19 shows the historical and projected teacher withdrawals, classified by the Ministry of Education. The proportion of each year’s attrition stream contributed by each type of withdrawal (retirement, death, to teach in various other types of school, to study, to resume household duties, etc.) is shown together with the assumptions about their proportions, and their estimated numbers for 1975/76* to 1979/80. Our estimated total withdrawals (i.e., teachers to be replaced) for 1975/76 was 7096. There were actually only 6697. (The elementary teacher force started to “freeze” in 1972. Its attrition rates have dropped quickly.) We had assumed a replacement of 12.20% of the previous year’s stock of teachers (see Appendix Table 20). This followed in line the rates of 1973, 13.05; 1974, 13.02; and 1975, 12.60. With the lower *de facto* withdrawal rate of 11.51%, there were 399 fewer replacement hirings than we had provided for.

So the lower PTR (than we had anticipated) combined with the lower enrolment (than we had estimated) led to a contraction of teacher stocks of only 360 jobs, rather than our estimated contraction of 458 jobs. However, the lower attrition led to fewer replacement hirings than we expected so our projected total net teacher demand figure of 6638 was still too high; only 6637 were “needed”.

The new teachers hired each year come from a number of sources. Since the Ministry’s chief concern over recent years has been the estimated number of new teacher graduates to enter the profession, the report breaks the net demand figures into several “sub demands”. Appendix Table 21 gives the historical and projected teacher acquisitions according to the Ministry of Education’s “source” categories. It shows the percentage of each year’s new hirings coming from each source. We assumed that 21.00% of the hiring competition would be won by re-entering teachers, 45.2% by graduates (not necessarily graduates of that year; since for a number of years there has been a surplus of graduates, there is now a queue with graduates of a number of “vintages” applying for teaching jobs).

The hiring of re-entering teachers is remaining at a surprisingly high level. We thought that the boards, since there has been a budget squeeze, would

*The total number of withdrawals is not known till the end of the school year, so it must be reported a year late. That is, the report being quoted was discussing the error of the projected September 1976 enrolment figures and the projected 1975/76 withdrawals.

TABLE 19B PROJECTED FULL-TIME ELEMENTARY SCHOOL TEACHERS ACQUISITIONS

| Acquisitions | 1976-77 | | 1977-78 | | 1978-79 | | 1979-80 | | 1980-81 | | 1981-82 | | 1982-83 | | 1983-84 | | 1984-85 | | 1985-86 | |
|-------------------------------------------------------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| A. 1. From Private Elementary and Secondary Schools | 58 | 1.0 | 46 | 1.0 | 46 | 1.0 | 46 | 1.0 | 44 | 1.0 | 42 | 1.0 | 39 | 1.0 | 36 | 1.0 | 34 | 1.0 | 33 | 1.0 |
| 2. From Schools of the trainable Retarded | 23 | 0.4 | 18 | 0.4 | 18 | 0.4 | 18 | 0.4 | 17 | 0.4 | 17 | 0.4 | 15 | 0.4 | 14 | 0.4 | 13 | 0.4 | 13 | 0.4 |
| 3. Former Secondary Teachers certified to teach Elementary Grades | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4. From schools outside Ontario | 204 | 3.5 | 138 | 3.0 | 115 | 2.5 | 115 | 2.5 | 111 | 2.5 | 107 | 2.5 | 99 | 2.5 | 90 | 2.5 | 86 | 2.5 | 84 | 2.5 |
| 5. Former part-time teachers non teaching full-time | 641 | 11.0 | 506 | 11.0 | 509 | 11.0 | 506 | 11.0 | 492 | 11.0 | 472 | 11.0 | 436 | 11.0 | 399 | 11.0 | 380 | 11.0 | 369 | 11.0 |
| 6. Teachers on exchange from other jurisdictions | 40 | 0.7 | 32 | 0.7 | 32 | 0.7 | 32 | 0.7 | 31 | 0.7 | 30 | 0.7 | 27 | 0.7 | 25 | 0.7 | 24 | 0.7 | 23 | 0.7 |
| 7. Holding letters of standing | 87 | 1.5 | 46 | 1.0 | 32 | 0.7 | 32 | 0.7 | 67 | 1.5 | 64 | 1.5 | 59 | 1.5 | 54 | 1.5 | 51 | 1.5 | 50 | 1.5 |
| 8. With letters of permission | 29 | 0.5 | 13 | 0.3 | 9 | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 9. Other | 961 | 16.4 | 814 | 17.6 | 860 | 18.5 | 863 | 18.7 | 805 | 17.9 | 772 | 17.9 | 715 | 17.9 | 654 | 17.9 | 625 | 18.0 | 606 | 18.0 |
| B. Graduates from Ontario Teacher education program | 2,625 | 45.0 | 2,071 | 45.0 | 2,083 | 45.0 | 2,071 | 45.0 | 2,014 | 45.0 | 1,931 | 45.0 | 1,786 | 45.0 | 1,634 | 45.0 | 1,557 | 45.0 | 1,513 | 45.0 |
| C. Qualified teachers re-entering profession | 1,166 | 20.0 | 920 | 20.0 | 926 | 20.0 | 920 | 20.0 | 895 | 20.0 | 858 | 20.0 | 794 | 20.0 | 726 | 20.0 | 692 | 20.0 | 672 | 20.0 |
| Total Acquisitions | 5,834 | 100.0 | 4,604 | 100.0 | 4,630 | 100.0 | 4,603 | 100.0 | 4,476 | 100.0 | 4,293 | 100.0 | 3,970 | 100.0 | 3,632 | 100.0 | 3,462 | 100.0 | 3,363 | 100.0 |

Appendix Table 20

ESTIMATED DEMAND FOR ELEMENTARY SCHOOL TEACHERS
IN ONTARIO, BASED ON ESTIMATE 1

| Year | | Stock of teachers ¹ | Expansion demand or contraction reduction | Replacement demand | % | Total demand | Re-entries to profession | | Demand from other sources ⁴ |
|------|---|-----------------------------------|-------------------------------------------------------|-----------------------|--------------------|-----------------|--------------------------------|--------------------|----------------------------------------------|
| | | No. | No. | No. | | No. | No. | % | No. |
| 1962 | | 39,249 | +1,170 | 5,118 | 13.44 ² | 6,288 | 1,314 | 20.90 ³ | 4,974 |
| 1963 | | 40,875 | +1,626 | 5,081 | 12.94 | 6,707 | 1,895 | 28.25 | 4,812 |
| 1964 | | 42,750 | +1,875 | 5,349 | 13.08 | 7,224 | 2,033 | 28.14 | 5,191 |
| 1965 | A | 44,967 | +2,217 | 5,703 | 13.34 | 7,920 | 1,989 | 25.11 | 5,931 |
| 1966 | | 47,647 | +2,680 | 6,642 | 14.77 | 9,322 | 2,162 | 23.19 | 7,160 |
| 1967 | C | 51,018 | +3,371 | 7,043 | 14.78 | 10,414 | 2,292 | 22.00 | 8,122 |
| 1968 | T | 54,587 | +3,569 | 7,476 | 14.65 | 11,045 | 2,620 | 23.72 | 8,425 |
| 1969 | | 57,587 | +3,000 | 8,297 | 15.19 | 11,297 | 2,317 | 20.51 | 8,980 |
| 1970 | U | 59,307 | +1,720 | 8,226 | 14.28 | 9,946 | 2,325 | 23.38 | 7,621 |
| 1971 | | 58,329 | - 978 | 7,813 | 13.17 | 6,835 | 1,876 | 27.45 | 4,959 |
| 1972 | A | 57,991 | - 338 | 7,417 | 12.72 | 7,079 | 2,176 | 30.74 | 4,903 |
| 1973 | | 56,630 | - 1,361 | 7,569 | 13.05 | 6,208 | 1,213 | 19.54 | 4,995 |
| 1974 | L | 56,678 | + 48 | 7,375 | 13.02 | 7,423 | 1,742 | 23.47 | 5,681 |
| 1975 | | 58,167 | +1,489 | 7,141 | 12.60 | 8,630 | 2,075 | 24.04 | 6,555 |
| 1976 | P | 57,709 | - 458 | 7,096 | 12.20 | 6,638 | 1,395 | 21.00 | 5,243 |
| 1977 | R | 56,592 | - 1,117 | 6,810 | 11.80 | 5,693 | 1,196 | 21.00 | 4,497 |
| 1978 | O | 55,241 | - 1,351 | 6,451 | 11.40 | 5,100 | 1,070 | 21.00 | 4,030 |
| 1979 | | 54,408 | - 833 | 6,077 | 11.00 | 5,244 | 1,102 | 21.00 | 4,142 |
| 1980 | J | 53,925 | - 483 | 5,713 | 10.50 | 5,230 | 1,098 | 21.00 | 4,132 |

¹ Estimate 1, P/T Ratio 23.6

² Percentage of previous year's stock

³ Percentage of total demand

⁴ Total demand minus re-entries

TABLE 21A ACTUAL FULL-TIME ELEMENTARY SCHOOL TEACHERS WITHDRAWALS, 1966-1976

| Withdrawals | 1966-67 | | 1967-68 | | 1968-69 | | 1969-70 | | 1970-71 | | 1971-72 | | 1972-73 | | 1973-74 | | 1974-75 | | 1975-76 | |
|--------------------------------------------------------------------------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1. To teach in Elem., Second. private, or teacher's College in Ontario | 1,704 | 24.2 | 938 | 12.5 | 853 | 11.2 | 615 | 7.5 | 607 | 7.8 | 496 | 5.7 | 256 | 3.4 | 201 | 3.0 | 254 | 3.6 | 247 | 4.4 |
| 2. To teach in Schools Outside Ontario | 584 | 7.8 | 584 | 7.8 | 593 | 7.1 | 512 | 6.2 | 410 | 5.3 | 233 | 3.1 | 212 | 2.8 | 313 | 4.3 | 300 | 4.2 | 267 | 4.0 |
| 3. To teach on a part-time basis in a publicly supported school | 234 | 3.1 | 234 | 3.1 | 290 | 3.5 | 294 | 3.6 | 506 | 6.5 | 548 | 7.4 | 520 | 6.9 | 553 | 7.5 | 640 | 9.0 | 604 | 9.0 |
| 4. To teach in a CAAT | | | | | | | | | | | | | 6 | 0.1 | 8 | 0.1 | 13 | 0.2 | 3 | 0.04 |
| 4.3 To teach trainable retarded | | | | | | | | | | | | | 17 | 0.2 | 36 | 0.5 | 23 | 0.3 | 22 | 0.3 |
| 5. To enroll in Teachers' colleges, University & other educational inst. | 605 | 8.6 | 756 | 10.1 | 869 | 10.5 | 819 | 10.0 | 619 | 7.9 | 461 | 6.2 | 509 | 6.7 | 464 | 6.3 | 491 | 6.9 | 380 | 5.7 |
| 6. To teach in another prov. or country on a formal exchange plan | | | | | | | 63 | 0.8 | 70 | 0.9 | 51 | 0.7 | 58 | 0.8 | 53 | 0.7 | 67 | 0.9 | 76 | 1.1 |
| 7. To supervise or administer position in education | | | 333 | 4.5 | 453 | 5.5 | 415 | 5.0 | 228 | 2.9 | 350 | 4.7 | 325 | 4.3 | 422 | 5.7 | 500 | 7.0 | 379 | 5.7 |
| 8. To a field outside education | 389 | 5.5 | 403 | 5.4 | 409 | 4.9 | 427 | 5.2 | 505 | 6.5 | 520 | 7.0 | 582 | 7.7 | 596 | 8.1 | 508 | 7.1 | 531 | 7.9 |
| 9. Assumption of household duties | 2,550 | 35.3 | 2,630 | 35.3 | 2,700 | 34.0 | 2,817 | 34.4 | 2,704 | 34.0 | 2,501 | 31.5 | 2,503 | 33.4 | 2,504 | 33.4 | 2,555 | 35.4 | 2,485 | 37.1 |
| 10. Marriage | 266 | 3.8 | 237 | 3.2 | 268 | 3.2 | 279 | 3.4 | 300 | 3.8 | 258 | 3.5 | 207 | 2.7 | 157 | 2.1 | 96 | 1.3 | | |
| 11. Retirement | 745 | 10.6 | 824 | 11.0 | 988 | 11.9 | 956 | 11.6 | 1,002 | 12.8 | 1,218 | 16.4 | 1,101 | 14.5 | 876 | 11.9 | 707 | 9.9 | 836 | 11.0 |
| 12. Illness | 140 | 2.0 | 167 | 2.2 | 140 | 1.7 | 156 | 1.9 | 132 | 1.7 | 125 | 1.7 | 127 | 1.7 | 133 | 1.8 | 140 | 2.0 | 121 | 1.7 |
| 13. Death | 61 | 0.9 | 81 | 1.1 | 61 | 0.7 | 52 | 0.6 | 40 | 0.5 | 47 | 0.6 | 54 | 0.7 | 44 | 0.6 | 46 | 0.6 | 47 | 0.7 |
| 14. Other | 577 | 8.2 | 287 | 3.8 | 398 | 4.8 | 472 | 5.7 | 690 | 8.8 | 639 | 8.6 | 762 | 10.1 | 790 | 10.7 | 801 | 11.2 | 625 | 9.3 |
| Total Withdrawals | 7,443 | 100 | 7,447 | 100 | 8,000 | 100 | 7,447 | 100 | 7,447 | 100 | 8,441 | 100 | 7,447 | 100 | 7,447 | 100 | 7,447 | 100 | 7,447 | 100 |

TABLE 21B PROJECTED FULL-TIME ELEMENTARY SCHOOL TEACHERS WITHDRAWALS, 1976-1986

| Withdrawals | 1976-77 | | 1977-78 | | 1978-79 | | 1979-80 | | 1980-81 | | 1981-82 | | 1982-83 | | 1983-84 | | 1984-85 | | 1985-86 | |
|-----------------------------------------------------------------------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1. To teach in Elem., Second. private, or teacher's College in Ontario | 254 | 4.0 | 240 | 4.0 | 223 | 4.0 | 208 | 4.0 | 195 | 4.0 | 183 | 4.0 | 171 | 4.0 | 160 | 4.0 | 148 | 4.0 | 137 | 4.0 |
| 2. To teach in Schools outside Ontario | 254 | 4.0 | 240 | 4.0 | 223 | 4.0 | 208 | 4.0 | 195 | 4.0 | 183 | 4.0 | 171 | 4.0 | 160 | 4.0 | 148 | 4.0 | 137 | 4.0 |
| 3. To teach on a part-time basis in a publicly supported school | 572 | 9.0 | 541 | 9.0 | 503 | 9.0 | 469 | 9.0 | 440 | 9.0 | 412 | 9.0 | 386 | 9.0 | 359 | 9.0 | 333 | 9.0 | 308 | 9.0 |
| 4. To teach in a CAAT | 3 | 0.1 | 6 | 0.1 | 5 | 0.1 | 5 | 0.1 | 5 | 0.1 | 4 | 0.1 | 4 | 0.1 | 4 | 0.1 | 4 | 0.1 | 3 | 0.1 |
| 4.a. To teach trainable retarded | 19 | 0.3 | 18 | 0.3 | 17 | 0.3 | 15 | 0.3 | 14 | 0.3 | 14 | 0.3 | 13 | 0.3 | 12 | 0.3 | 11 | 0.3 | 10 | 0.3 |
| 5. To enroll in teacher's Colleges, Universities and other educational Institutes | 382 | 6.0 | 361 | 6.0 | 335 | 6.0 | 313 | 6.0 | 293 | 6.0 | 275 | 6.0 | 257 | 6.0 | 240 | 6.0 | 222 | 6.0 | 205 | 6.0 |
| 6. To teach in another province or country on a formal exchange plan | 51 | 0.8 | 48 | 0.8 | 45 | 0.8 | 42 | 0.8 | 39 | 0.8 | 36 | 0.8 | 34 | 0.8 | 34 | 0.8 | 29 | 0.8 | 27 | 0.8 |
| 7. To supervisor or administer position in education | 318 | 5.0 | 270 | 4.5 | 223 | 4.0 | 208 | 4.0 | 195 | 4.0 | 183 | 4.0 | 171 | 4.0 | 160 | 4.0 | 148 | 4.0 | 137 | 4.0 |
| 8. To a field outside education | 445 | 7.0 | 391 | 6.5 | 363 | 6.5 | 339 | 6.5 | 317 | 6.5 | 298 | 6.5 | 279 | 6.5 | 260 | 6.5 | 241 | 6.5 | 222 | 6.5 |
| 9. Resumption of household duties | 2,321 | 36.5 | 2,165 | 36.0 | 1,983 | 35.5 | 1,826 | 35.0 | 1,710 | 35.0 | 1,603 | 35.0 | 1,501 | 35.0 | 1,398 | 35.0 | 1,296 | 35.0 | 1,198 | 35.0 |
| 10. Marriage | | | | | | | | | | | | | | | | | | | | |
| 11. Retirement | 763 | 12.0 | 722 | 12.0 | 670 | 12.0 | 626 | 12.0 | 586 | 12.0 | 550 | 12.0 | 514 | 12.0 | 479 | 12.0 | 444 | 12.0 | 411 | 12.0 |
| 12. Illness | 114 | 1.8 | 108 | 1.8 | 100 | 1.8 | 94 | 1.8 | 88 | 1.8 | 82 | 1.8 | 77 | 1.8 | 72 | 1.8 | 66 | 1.8 | 61 | 1.8 |
| 13. Death | 38 | 0.6 | 36 | 0.6 | 33 | 0.6 | 31 | 0.6 | 29 | 0.6 | 27 | 0.6 | 26 | 0.6 | 24 | 0.6 | 22 | 0.6 | 20 | 0.6 |
| 14. Other | 825 | 12.9 | 869 | 14.4 | 864 | 15.4 | 833 | 15.9 | 781 | 15.9 | 731 | 15.9 | 684 | 15.9 | 634 | 15.9 | 592 | 15.9 | 548 | 15.9 |
| Total Withdrawals | 6,359 | 100.0 | 6,015 | 100.0 | 5,587 | 100.0 | 5,217 | 100.0 | 4,887 | 100.0 | 4,581 | 100.0 | 4,288 | 100.0 | 3,996 | 100.0 | 3,704 | 100.0 | 3,424 | 100.0 |

choose to hire new graduates (at lower salaries) rather than re-entering experienced teachers (at higher salaries). There were 1391 re-entrants hired, which represents 22.0% of the 1975-76 acquisitions (instead of 1395 which we projected, which represents 21.0% of our higher total net demand figure). So on the estimate of the hiring of re-entrants we came within four of the actual figure (because of compensating errors).

There were 2753 new graduates hired, representing 43.4% of the total actual hirings. We had projected 3000, 45.2% of the higher net demand estimate. So not only were the re-entry teachers (in spite of cost) faring better in the job competition than we expected, but also those from some of the other sources of supply (transferring teachers from private schools, teachers on exchange from elsewhere in the world, those holding letters of standing – experienced foreign teachers whose training is not yet recognized as being equivalent to Ontario teacher training), although the entire “other” category hired was only 2193 instead of the 2243 which we projected (an error of +2.3%, 50).

In summary: in estimating teacher supply/demand each side of the equation rests on trends which may sharply change (a) as a result of the sum of a number of individual decisions all similar (e.g., decision of a teacher not to “withdraw” for a year or two; decision of a hiring team – principals and senior administrators – to hire the “best” teacher, probably an experienced re-entrant with a good record, regardless of cost). Nevertheless, it is possible to be reasonably accurate for the short term – last year we were 0.17% too low on the projected numbers of teachers needed altogether (continuing in employment + new hirings), 5.9% too high on the expected number of withdrawals from employment, 4.7% too high on the number of new hirings. We were only four out on the number of re-entering teachers obtaining jobs, but we overestimated by 247 the number of new graduates hired (+8.9% error). The insecurity brought about by the teacher surplus has caused traditional attrition rates to reduce sharply. Since turnover is now the only source of teacher job vacancies, such a reduction of attrition adversely affects the new teacher graduate’s chances of obtaining employment.

The secondary school teacher picture for the moment is less grim. Enrolment in that sector has not yet begun to contract. Appendix Table 22 shows the actual and projected number of pupils and teachers and the PTR. The latter had been 17.3 in 1973, 17.2 in 1974 and 17.4 in 1975. We reckoned it would begin to rise. We set it at 17.5 for the years 1976 to 1986. Our enrolment projection was high (by 0.34%; there were 613,055 pupils instead of 615,140 as we anticipated) but the lower PTR (of 17.3 instead of 17.5) compensated somewhat so our estimated gross teacher demand – for continuing + new employees – was only slightly lower than the actual case. We provided for 35,151 teachers; there were actually 35,352; our error was 0.57%.

Appendix Table 22

PUPILS AND TEACHERS IN ONTARIO SECONDARY SCHOOLS

| Year | | Pupils | Teachers | Pupil/Teacher Ratio |
|------|---|---------|----------|------------------------|
| 1958 | | 222,075 | 9,573 | 23.2 |
| 1959 | | 237,576 | 10,464 | 22.7 |
| 1960 | | 262,775 | 11,478 | 22.9 |
| 1961 | A | 299,177 | 12,850 | 23.3 |
| 1962 | | 331,578 | 14,923 | 22.2 |
| 1963 | C | 364,210 | 17,170 | 21.2 |
| 1964 | | 395,301 | 19,205 | 20.6 |
| 1965 | T | 418,738 | 21,659 | 19.3 |
| 1966 | | 436,026 | 24,242 | 18.0 |
| 1967 | U | 463,736 | 27,164 | 17.1 |
| 1968 | | 500,807 | 30,203 | 16.6 |
| 1969 | A | 530,679 | 32,342 | 16.4 |
| 1970 | | 556,913 | 33,693 | 16.5 |
| 1971 | L | 574,520 | 34,469 | 16.7 |
| 1972 | | 583,013 | 34,549 | 16.9 |
| 1973 | | 585,725 | 33,889 | 17.3 |
| 1974 | | 589,650 | 34,231 | 17.2 |
| 1975 | | 605,160 | 34,826 | 17.4 |
| 1976 | | 615,140 | 35,151 | 17.5 |
| 1977 | P | 620,552 | 35,460 | 17.5 |
| 1978 | | 622,924 | 35,596 | 17.5 |
| 1979 | R | 613,145 | 35,037 | 17.5 |
| 1980 | | 591,254 | 33,789 | 17.5 |
| 1981 | O | 564,478 | 32,256 | 17.5 |
| 1982 | | 538,533 | 30,773 | 17.5 |
| 1983 | J | 521,573 | 29,804 | 17.5 |
| 1984 | | 519,342 | 29,677 | 17.5 |
| 1985 | | 521,747 | 29,814 | 17.5 |
| 1986 | | 522,655 | 29,866 | 17.5 |

Again, the replacement demand was lower than we expected (6.6% of the previous year's stock instead of 7.0). But since there was slightly greater enrolment expansion than we expected (526 extra pupils instead of 325) the number of new hirings exceeded our estimate by 2.4% (2851 teachers instead of 2785, 66 more than projected). We thought the re-entering teachers would get 445 of the jobs, they got 434; we thought the new graduates would get 50% of the jobs, they got 49%. Appendix Tables 22-25 give the details of our 1976 secondary school teacher estimate in last year's report to the Ministry. Appendix Tables 26 and 27 summarize our errors in estimating withdrawals and acquisitions. Once the actual contraction hits the secondary sector we would expect withdrawals to reduce drastically. So the actual replacement demand is likely, in future years, to be much less than the numbers in our earlier estimates unless some strong policy intervention is made.

TABLE 23A ACTUAL FULL-TIME SECONDARY SCHOOL TEACHER ACQUISITIONS

| Acquisitions | 1966-67 | | 1967-68 | | 1968-69 | | 1969-70 | | 1970-71 | | 1971-72 | | 1972-73 | | 1973-74 | | 1974-75 | | 1975-76 | |
|-----------------------------------------------------------------------------------------------------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| A. 1. Four private elementary and secondary schools and former elementary teachers qualified to teach Secondary | 198 | 3.4 | 302 | 4.9 | 214 | 3.8 | 138 | 2.7 | 116 | 2.8 | 125 | 3.7 | 23 | 1.0 | 25 | 0.8 | 59 | 1.9 | 25 | 0.9 |
| 2. Four School for the trainable retarded | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 6 | 0.2 | 6 | 0.2 | 4 | 0.1 |
| 3. Four Schools outside Ontario | - | - | - | - | - | - | - | - | - | - | - | - | 81 | 3.5 | 111 | 3.6 | 118 | 3.8 | 99 | 3.5 |
| 4. Former part-time teachers not teaching full-time | - | - | - | - | - | - | - | - | - | - | - | - | 123 | 5.4 | 238 | 7.6 | 185 | 5.9 | 158 | 5.5 |
| 5. Teachers on exchange from other jurisdictions | - | - | - | - | - | - | 25 | 0.5 | 31 | 0.7 | 35 | 1.0 | 34 | 1.5 | 36 | 1.1 | 54 | 1.7 | 52 | 1.8 |
| 6. Holding letter of standing | 335 | 5.7 | 330 | 5.4 | 585 | 10.4 | 428 | 8.4 | 232 | 5.5 | 126 | 3.8 | 40 | 1.7 | 77 | 2.5 | 89 | 2.8 | 60 | 2.1 |
| 7. Letter of Permission | 1,013 | 17.3 | 710 | 11.6 | 1,016 | 18.1 | 689 | 13.5 | 185 | 4.4 | - | - | - | - | 164 | 5.2 | 167 | 5.3 | 102 | 3.6 |
| 8. Holding temporary Second school certificates | - | - | 2,953 | 48.1 | 1,078 | 19.2 | 719 | 14.1 | 536 | 12.7 | 94 | 2.8 | 11 | 0.5 | 21 | 0.7 | 49 | 1.6 | 38 | 1.3 |
| 9. Others | 402 | 6.8 | 237 | 3.9 | 592 | 10.5 | 435 | 8.5 | 415 | 9.8 | 575 | 17.2 | 394 | 17.1 | 422 | 13.5 | 461 | 14.6 | 482 | 16.9 |
| B. Graduates from Ontario teacher education program | 3,351 | 57.1 | 880 | 14.3 | 1,377 | 24.5 | 1,809 | 35.4 | 1,852 | 44.0 | 1,744 | 52.0 | 1,252 | 54.4 | 1,530 | 49.0 | 1,425 | 45.2 | 1,397 | 49.0 |
| C. Qualified teachers re-entering who were not employed as teachers in Ontario last year | 571 | 9.7 | 728 | 11.8 | 757 | 13.5 | 862 | 16.9 | 847 | 20.1 | 654 | 19.5 | 341 | 14.8 | 493 | 15.8 | 537 | 17.0 | 434 | 15.2 |
| Total Acquisitions | 5,870 | 100.0 | 6,140 | 100.0 | 5,619 | 100.0 | 5,105 | 100.0 | 4,214 | 100.0 | 3,353 | 100.0 | 2,300 | 100.0 | 3,123 | 100.0 | 3,150 | 100.0 | 2,851 | 100.0 |

TABLE 24A ACTUAL FULL-TIME SECONDARY SCHOOL TEACHERS WITHDRAWALS, 1966-76

| Withdrawals | 1966-67 | | 1967-68 | | 1968-69 | | 1969-70 | | 1970-71 | | 1971-72 | | 1972-73 | | 1973-74 | | 1974-75 | | 1975-76 | |
|-----------------------------------------------------------------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1. To teach in Secondary, Elementary, private or Teachers colleges in total | 764 | 25.9 | 166 | 5.4 | 168 | 4.8 | 210 | 5.6 | 204 | 5.9 | 271 | 8.3 | 116 | 3.9 | 127 | 4.6 | 143 | 5.8 | 95 | 4.1 |
| 2. To teach in school outside Ontario | | | 297 | 9.6 | 305 | 8.8 | 314 | 8.4 | 296 | 8.6 | 197 | 6.0 | 128 | 4.3 | 172 | 6.2 | 128 | 5.0 | 116 | 5.0 |
| 2.a To teach in a school for the trainable retarded | | | | | | | | | | | 3 | 0.1 | | | 10 | 0.4 | 3 | 0.1 | 2 | 0.1 |
| 3. To teach on a part-time basis in a publicly supported school | | | 53 | 1.7 | 67 | 1.9 | 44 | 1.2 | 100 | 2.9 | 98 | 3.0 | 195 | 6.6 | 203 | 7.3 | 173 | 6.8 | 156 | 6.7 |
| 4. To teach in a CAAT | | | 141 | 4.5 | 140 | 2.3 | 71 | 1.9 | 31 | 0.9 | 35 | 1.1 | 25 | 0.8 | 24 | 0.9 | 10 | 0.4 | 8 | 0.3 |
| 4a. To teach in another province on an exchange plan | | | | | | | 54 | 1.4 | 47 | 1.4 | 34 | 1.0 | 36 | 1.2 | 29 | 1.0 | 45 | 1.8 | 53 | 2.3 |
| 5. To enrol in teachers' colleges or universities | 471 | 16.0 | 482 | 15.5 | 488 | 16.9 | 616 | 16.4 | 471 | 13.7 | 304 | 9.3 | 219 | 7.4 | 227 | 8.2 | 196 | 7.7 | 189 | 8.1 |
| 6. To a supervisory, administrative, or other position in education | | | 194 | 6.2 | 278 | 8.0 | 228 | 6.1 | 151 | 4.4 | 181 | 5.5 | 135 | 4.6 | 175 | 6.3 | 176 | 6.9 | 157 | 6.8 |
| 7. To employment in a field outside education | 353 | 12.0 | 359 | 11.6 | 454 | 13.0 | 498 | 13.3 | 453 | 13.2 | 460 | 14.0 | 550 | 18.6 | 548 | 19.7 | 439 | 17.2 | 394 | 17.0 |
| 8. Resumption of household duties | 561 | 18.3 | 645 | 20.8 | 722 | 20.7 | 834 | 22.2 | 782 | 22.7 | 686 | 21.0 | 581 | 19.6 | 519 | 18.7 | 467 | 18.3 | 448 | 19.9 |
| 9. Marriage | 95 | 3.2 | 103 | 3.3 | 97 | 2.8 | 98 | 2.6 | 91 | 2.6 | 58 | 1.8 | 67 | 2.3 | 53 | 1.9 | 25 | 1.0 | | |
| 10. Retirement | 237 | 8.0 | 254 | 8.2 | 305 | 8.8 | 307 | 8.2 | 367 | 10.7 | 508 | 15.5 | 416 | 14.0 | 291 | 10.4 | 275 | 10.8 | 307 | 13.2 |
| 11. Illness | 52 | 1.8 | 61 | 2.0 | 43 | 1.4 | 64 | 1.7 | 56 | 1.6 | 35 | 1.1 | 46 | 1.6 | 42 | 1.5 | 49 | 1.9 | 39 | 1.7 |
| 12. Death | 38 | 1.3 | 36 | 1.2 | 40 | 1.2 | 43 | 1.4 | 36 | 1.1 | 53 | 1.6 | 35 | 1.2 | 53 | 1.9 | 36 | 1.4 | 42 | 1.8 |
| 13. Other | 397 | 13.5 | 310 | 10.0 | 328 | 9.4 | 373 | 9.9 | 353 | 10.3 | 353 | 10.8 | 408 | 13.8 | 308 | 11.1 | 385 | 15.1 | 319 | 13.7 |
| Total Withdrawals | 2,948 | 100.0 | 3,101 | 100.0 | 3,480 | 100.0 | 3,754 | 100.0 | 3,438 | 100.0 | 3,273 | 100.0 | 2,960 | 100.0 | 2,781 | 100.0 | 2,555 | 100.0 | 2,325 | 100.0 |

TABLE 24B PROJECTED FULL-TIME SECONDARY SCHOOL TEACHERS WITHDRAWALS, 1976-86

| Withdrawals | 1976-77 | | 1977-78 | | 1978-79 | | 1979-80 | | 1980-81 | | 1981-82 | | 1982-83 | | 1983-84 | | 1984-85 | | 1985-86 | |
|---------------------------------------------------------------------------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| 1. To teach in Secondary, Elementary, private or Teachers College in Ont. | 85 | 4.0 | 78 | 4.0 | 71 | 4.0 | 69 | 4.0 | 67 | 4.0 | 64 | 4.0 | 61 | 4.0 | 59 | 4.0 | 58 | 4.0 | 58 | 4.0 |
| 2. To teach in schools outside Ontario | 106 | 5.0 | 97 | 5.0 | 88 | 5.0 | 86 | 5.0 | 83 | 5.0 | 79 | 5.0 | 76 | 5.0 | 73 | 5.0 | 73 | 5.0 | 73 | 5.0 |
| 2a. To teach in a school for the trainable retarded | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 2 | 0.1 | 1 | 0.1 |
| 3. To teach on a part-time basis in a publicly supported school | 138 | 6.5 | 116 | 6.0 | 100 | 6.0 | 104 | 6.0 | 100 | 6.0 | 95 | 6.0 | 91 | 6.0 | 88 | 6.0 | 87 | 6.0 | 87 | 6.0 |
| 4. To teach in a CAAT | 6 | 0.3 | 6 | 0.3 | 5 | 0.3 | 5 | 0.3 | 5 | 0.3 | 5 | 0.3 | 5 | 0.3 | 4 | 0.3 | 4 | 0.3 | 4 | 0.3 |
| 4a. To teach in another province on an exchange plan | 42 | 2.0 | 33 | 1.7 | 26 | 1.5 | 26 | 1.5 | 25 | 1.5 | 24 | 1.5 | 23 | 1.5 | 22 | 1.5 | 22 | 1.5 | 22 | 1.5 |
| 5. To enrol in teacher's Colleges or Universities | 170 | 8.0 | 155 | 8.0 | 141 | 8.0 | 138 | 8.0 | 133 | 8.0 | 127 | 8.0 | 121 | 8.0 | 118 | 8.0 | 116 | 8.0 | 116 | 8.0 |
| 6. To a supervisory/admin. position in education | 140 | 6.6 | 124 | 6.4 | 109 | 6.2 | 104 | 6.0 | 100 | 6.0 | 95 | 6.0 | 91 | 6.0 | 88 | 6.0 | 87 | 6.0 | 87 | 6.0 |
| 7. To employment in a field outside education | 356 | 16.8 | 322 | 16.6 | 289 | 16.4 | 280 | 16.2 | 266 | 16.0 | 254 | 16.0 | 242 | 16.0 | 235 | 16.0 | 233 | 16.0 | 233 | 16.0 |
| 8. Resumption of household duties | 403 | 19.1 | 363 | 18.7 | 325 | 18.4 | 313 | 18.1 | 296 | 17.8 | 278 | 17.5 | 265 | 17.5 | 257 | 17.5 | 255 | 17.5 | 254 | 17.5 |
| 9. Marriage | | | | | | | | | | | | | | | | | | | | |
| 10. Retirement | 280 | 13.2 | 262 | 13.5 | 243 | 13.8 | 242 | 14.1 | 233 | 14.0 | 222 | 14.0 | 212 | 14.0 | 206 | 14.0 | 204 | 14.0 | 204 | 14.0 |
| 11. Illness | 38 | 1.8 | 35 | 1.8 | 32 | 1.8 | 31 | 1.8 | 30 | 1.8 | 29 | 1.8 | 27 | 1.8 | 26 | 1.8 | 26 | 1.8 | 26 | 1.8 |
| 12. Death | 38 | 1.8 | 37 | 1.9 | 35 | 2.0 | 35 | 2.0 | 33 | 2.0 | 32 | 2.0 | 30 | 2.0 | 29 | 2.0 | 29 | 2.0 | 29 | 2.0 |
| 13. Others | 317 | 14.9 | 313 | 16.0 | 292 | 16.5 | 285 | 17.0 | 272 | 17.5 | 263 | 17.5 | 253 | 17.8 | 242 | 17.8 | 240 | 17.8 | 240 | 17.8 |
| Total Withdrawals | 2,121 | | 1,943 | | 1,764 | | 1,735 | | 1,665 | | 1,585 | | 1,516 | | 1,469 | | 1,456 | | 1,454 | |

Appendix Table 25 ESTIMATED DEMAND AND SUPPLY OF SECONDARY SCHOOL TEACHERS IN ONTARIO

| Year | Teacher stock No. | DEMAND | | | | SUPPLY | | | | | |
|------|----------------------|-----------|-------|-------------|-------|--------------|------------|------|----------------------|--------------------------------------|--------------|
| | | Expansion | | Replacement | | Total No. | Re-entries | | New hiring No. | Graduates from colleges No. | Other No. |
| | | No. | % | No. | % | | No. | % | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1976 | 35,151 | + 325 | 2,460 | 7.0 | 2,785 | 445 | 1.27 | 16.0 | 2,340 | 1,421 | 919 |
| 1977 | 35,460 | + 309 | 2,304 | 6.5 | 2,613 | 405 | 1.14 | 15.5 | 2,208 | 1,374 | 834 |
| 1978 | 35,596 | + 136 | 2,171 | 6.0 | 2,307 | 335 | 0.94 | 14.5 | 1,972 | 1,253 | 719 |
| 1979 | 35,037 | - 559 | 2,102 | 6.0 | 1,543 | 193 | 0.55 | 12.5 | 1,350 | 895 | 455 |
| 1980 | 33,789 | - 1,248 | 2,027 | 6.0 | 779 | 82 | 0.24 | 10.5 | 697 | 468 | 229 |
| 1981 | 32,256 | - 1,533 | 1,935 | 6.0 | 402 | 40 | 0.12 | 10.0 | 362 | 244 | 118 |

APPENDIX C

TASK FORCE ON BASIC RESEARCH DATA

Dr. F. Gerald Ridge,
Director of Capital Programming
Metropolitan Toronto School Board,
155 College St.,
Toronto, Ont. M5T 1P6

Mr. H. W. Moore,
Controller of Planning and Plant,
Board of Education
for the Borough of Etobicoke,
1 Civic Centre Court,
Etobicoke, Ont. M9C 2B3

Dr. A. J. Barone,
Superintendent of Region 4,
Metropolitan Separate School Board,
150 Laird Drive,
Toronto, Ont. M4G 3V8

Mr. W. T. Townshend,
Superintendent of Operations,
Waterloo County Board of Education,
Box 68,
Kitchener, Ont. N2G 3X5

Mr. R. H. Field,
Director of Education,
Board of Education
for the City of Windsor,
451 Park St. West,
Windsor, Ont. N9Z 5V4

Dean Lionel Desjarlais,
1684 Rhodes Court,
Ottawa, Ont. K1H 5S9

Mr. G. W. Thomson,
Director of Education,
Sudbury Board of Education,
Civic Square, West Tower,
200 Brady St.,
Sudbury, Ont. P3E 5K3

Ms. Sharon McElroy,
Research Services Officer,
Educational Relations Commission,
111 Avenue Rd., Suite 400,
Toronto, Ont. M5R 3J8

Dr. Florence Henderson,
Executive Secretary,
Federation of Women Teachers'
Associations of Ontario,
1260 Bay St., 3rd floor,
Toronto, Ont. M5R 2B8

Mr. Bertrand L. Hansen,
Managing Partner,
The Hansen Group,
2190 Obeck Cres.,
Mississauga, Ont. L5H 3L7

Mr. Harvey Nightingale,
Director of Economic and
Legislative Services,
Ontario School Trustees' Council,
2 Bloor St. West,
Toronto, Ont. M4W 3E2

Mrs. Joan St. Rose-Haynes,
Chief Statistical Officer,
Statistics Section,
Information Systems and Records Branch,
Ontario Ministry of Education,
18th floor, Mowat Block,
Toronto, Ont. M7A 1L2

Ex officio:

Dr. John Holland,
Acting Chairman,
Dept. of Educational Planning, OISE,
252 Bloor St. West,
Toronto, Ont. M5S 1V6

Mr. Saeed Quazi,
Project Director,
Dept. of Educational Planning, OISE,
252 Bloor St. West,
Toronto, Ont. M5S 1V6

TASK FORCE (CURRICULUM)

Mr. Bruce Archer
Ontario Teachers' Federation
Suite 700
1260 Bay Street
Toronto, Ontario M5R 2B5

Mr. John Ricker
Dean, Faculty of Education
University of Toronto
371 Bloor Street West
Toronto, Ontario M5S 2R7

Dr. Peter F. Bargaen
Ontario School Trustees' Council
Suite 500
2 Bloor Street West
Toronto, Ontario M4W 3E2

Dr. John Mallea
Assistant Director (Academic)
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Mr. J. F. Clifford
Director
Waterloo County R.C.S.S. Board
91 Moore Avenue
Box 1116
Kitchener, Ontario N2G 4G2

Dr. Susan Padro
Associate Professor
Department of Educational Planning
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario

Dr. Mel Edwardh
Gage Publishing Co. Ltd.
164 Commander Blvd.
Agincourt, Ontario M1S 3C7

Dr. Kenneth Prueter
International Education Office
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Mr. Irving Gerstein
People's Jewellers
181 Young Street
Toronto, Ontario M5B 1M6

Dr. Ellen Regan
Department of Curriculum
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Mr. Duncan Green
Director
Toronto Board of Education
155 College Street
Toronto, Ontario M5T 1P6

Dr. Merlin Wahlstrom
Department of Curriculum
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Mr. R. J. Lynch
Director
Nipissing Board of Education
P. O. Box 3110
North Bay, Ontario P1B 8H1

Dr. Cicely Watson, Professor
Department of Educational Planning
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Mrs. C. Michalski
980 Broadview Avenue, #2402
Toronto, Ontario M4K 3Y1

TASK FORCE (CURRICULUM) cont'd.

Dr. Joel Weiss
Department of Curriculum
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Dr. H. G. Hedges, Head
OISE Niagara Centre
Connaught Public School
28 Prince Street
St. Catharines, Ontario L2R 3X7

Dr. Ken Leithwood
Department of Curriculum
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Dr. F. Michael Connelly (Chairman)
Department of Curriculum
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

TASK FORCE (FINANCE)

Dr. Richard M. Bird
Professor of Economics
The Institute for Policy Analysis
University of Toronto
150 St. George Street
Toronto, Ontario M5S 1H1

Dr. John W. Holland (Chairman)
Associate Professor
Department of Educational Planning
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Dr. Donald A. Dawson
Research Director
Ontario Economic Council
81 Wellesley Street East
Toronto, Ontario M4Y 1H6

Dr. Peter J. Atherton
Dean
College of Education
Brock University
St. Catharines, Ontario L2S 3A1

Professor E. Brock Rideout
Department of Educational
Administration
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Mrs. Helen Salisbury
Social and Economic Data
Central Statistics Services
Ontario Ministry of Treasury, Economics
and Intergovernmental Affairs
Queen's Park
Toronto, Ontario M7A 1K4

Mr. Michael Skolnik
Assistant Director (Administration)
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Rev. Carl Matthews
Bellarmine Hall
2 Dale Avenue
Toronto, Ontario M4W 1K4

(cont'd.)

Mr. Bertrand L. Hansen
Department of Higher Education
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Dr. Cicely Watson
Professor
Department of Educational Planning
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

Dr. Ralph Benson
School Finance Advisor
Ministry of Education
900 Bay Street
Mowat Block, 21st Floor
Toronto, Ontario M7A 1L2

Mr. Saeed Quazi
Project Director
Department of Educational Planning
Ontario Institute for Studies
in Education
252 Bloor Street West
Toronto, Ontario M5S 1V6

TASK FORCE--SCHOOL FACILITIES AND THE COMMUNITY

CHAIRMAN--HOWARD B. HENDERSON

Mr. H. W. Moore
Controller of Planning and Plant
Etobicoke Board of Education
1 Civic Centre Court
Etobicoke, Ontario M9C 2B3

Mr. W. G. Beevor
Director of Education
Lakehead Board of Education
Education Centre, 2135 Sills Street
Thunder Bay, Ontario P7E 5T2

Mr. J. Penner
Deputy Business Administrator
Hamilton Board of Education
Box 558, 100 Main Street West
Hamilton, Ontario L8N 3L1

Mr. O. Tremblay
Director of Education
Sudbury District R.C.S.S. Board
201 Jogues Street
Sudbury, Ontario P3C 5L7

Mr. E. G. Runacres
Director of Education
Hastings County Board of Education
156 Ann Street
Belleville, Ontario L2P 3J9

Mr. R. J. Field
Director of Education
Windsor Board of Education
451 Park Street West
Windsor, Ontario NOA 5V4

